

MARICOPA ASSOCIATION OF GOVERNMENTS INFORMATION SUMMARY... for your review

DATE:

May 20, 2008

SUBJECT:

MAG 208 Small Plant Review and Approval for the Proposed Preserve at Goldfield Ranch Water Reclamation Facility

SUMMARY:

On October 2, 2007, Maricopa County sent a letter to MAG requesting that MAG review the proposed Preserve at Goldfield Ranch Water Reclamation Facility through the Small Plant Review and Approval Process of the MAG 208 Water Quality Management Plan. Originally, the Draft Small Plant Review and Approval document indicated that the proposed facility would have an ultimate capacity of 400,000 gallons per day and reclaimed water would be disposed of through recharge. Based on comments received, the document has since been revised to also include reuse as a method of disposal. The Fort McDowell Yavapai Nation and Salt River Pima-Maricopa Indian Community are within three miles of the project and both have expressed concern about the Draft Small Plant Review and Approval for the proposed facility.

On March 20, 2008, following approximately two and one-half hours of presentations and discussion, the MAG Water Quality Advisory Committee recommended approval of the Draft Small Plant Review and Approval for the proposed facility. On April 9, 2008, the MAG Management Committee heard presentations from the Preserve at Goldfield Ranch, the Fort McDowell Yavapai Nation, and the Salt River Pima-Maricopa Indian Community. Following discussion, the MAG Management Committee recommended approval of the Draft Small Plant Review and Approval for the proposed facility recognizing the commitment volunteered by the developer to treat the effluent at a level higher than required by the state: 10 milligrams per liter (mg/l) for total suspended solids, 10 mg/l for biochemical oxygen demand, 5 mg/l for total nitrogen, and 1 mg/l (85 percent efficiency) for total phosphorus.

In April, the President of the Salt River Pima-Maricopa Indian Community requested a one-month delay to provide them an opportunity to hire an independent consultant to investigate information brought forward by the Salt River Project in an April 8, 2008 letter. As the Chair of the Regional Council described in an April 28, 2008 memorandum, the item has been postponed for one month until the May 28, 2008 Regional Council meeting. Also indicated in the memorandum, the Salt River Pima-Maricopa Indian Community assured the Chair of the Regional Council that they would quickly hire a consultant and report back to the Regional Council in May. The Chair of the Regional Council also mentioned that he believed it would be important for their study to be reviewed by members of the Water Quality Advisory Committee prior to the May Regional Council meeting. Also, MAG received a May 13, 2008 letter from the Arizona Department of Environmental Quality regarding the project. The consultant report is on the May 22, 2008 Water Quality Advisory Committee agenda. An update will be provided to the Regional Council under separate cover.

Initially, the MAG Water Quality Advisory Committee reviewed the Draft Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility on October 22, 2007. At the

meeting, the Committee tabled the Draft Small Plant Review and Approval for 60 days to allow the applicant to work cooperatively with the Fort McDowell Yavapai Nation to address the concerns raised by the Nation in its October 2, 2007 letter and to also work cooperatively with the Salt River Pima-Maricopa Indian Community. In addition, the MAG Water Quality Advisory Committee requested additional detail on the Preserve at Goldfield Ranch Water Reclamation Facility.

On December 21, 2007, the MAG Water Quality Advisory Committee reviewed the additional detail on the facility and received an update on the communication between the Goldfield Preserve and Indian Communities to resolve the issues. The Fort McDowell Yavapai Nation indicated that it had met with the Goldfield Preserve; however, its questions had not been addressed. The Salt River Pima-Maricopa Indian Community stated that it had requested and received documentation regarding the project; however, due to limited review time, the Community was not satisfied that the proposed development/facility would not impact its underground and surface water resources. At the meeting, the Committee continued the Draft Small Plant Review and Approval for 90 days with a goal of encouraging the parties to begin their first meeting within 30 days.

During the 90 day continuance, the Goldfield Preserve met with the Fort McDowell Yavapai Nation and the Salt River Pima-Maricopa Indian Community. On February 28, 2008, the Ellman Companies (Goldfield Preserve) sent a letter to the Fort McDowell Yavapai Nation responding to the issues raised by the Nation in their February 27, 2008 meeting. On February 29, 2008, Maricopa County sent a letter to MAG indicating that the Draft Small Plant Review and Approval had been revised to address issues raised by the Fort McDowell Yavapai Nation. In response to comments received, the Goldfield Preserve revised the Draft Small Plant Review and Approval to reflect a higher range of operating and maintenance costs, include Parcel B and contiguous parcels within the service area for the facility, and add reuse as a method of effluent disposal to match the language in the Development Master Plan (DMP). In addition, the Draft Small Plant Review and Approval was revised to ensure consistency with other submittals, based on a comment received from the Nation. The revised document also includes the correspondence between the Goldfield Preserve and Indian Communities through February 28, 2008. According to the revised document, the proposed facility would continue to have an ultimate capacity of 400,000 gallons per day and reclaimed water would now be disposed of through reuse and recharge.

At the March 20, 2008 MAG Water Quality Advisory Committee meeting, presentations were given by the Preserve at Goldfield Ranch, the Fort McDowell Yavapai Nation, and the Salt River Pima-Maricopa Indian Community. At the meeting, the Indian Communities expressed their concerns about the project. A major concern of the Fort McDowell Yavapai Nation is that the effluent from the Preserve at Goldfield Ranch Water Reclamation Facility, when recharged, would harm the Nation's drinking water. Some additional concerns include: the lack of hydrogeologic information with regard to the confining layer; facility financing; not including the entire planning area in the calculations for the ultimate capacity of the facility; the Nation not being provided with a letter to determine if the proposed facility would adversely affect operation or financial structure of an existing facility; failure to include a backup and redundancy plan; a detailed site plan was not provided and the treatment process remains an open question; and the company proposed to operate and maintain the facility is set to be dissolved in 2010.

The Goldfield Preserve provided a response to concerns raised by the Fort McDowell Yavapai Nation at the March 20, 2008 MAG Water Quality Advisory Committee meeting. In terms of additional hydrogeologic information, the Goldfield Preserve has indicated that additional information will be provided when available pursuant to the Aquifer Protection Permit (APP) and Underground Storage Facility (USF) Permit, which are issued by the Arizona Department of Environmental Quality and Arizona Department of Water Resources, respectively. The Goldfield Preserve discussed the requirements for the permits and indicated that the questions raised will be addressed during the permitting process. For facility financing, the Goldfield Preserve has stated that the developer funds capital costs; a County Improvement District (Maricopa County Board of Supervisors) was established

for ongoing operation and maintenance; user fees will be based on land ownership; and that a financial assurance letter, consolidated financial report and independent auditor's assessment of the report were provided. In addition, the Goldfield Preserve provided a comparison of financial documentation and operation and maintenance between the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility and other approved Small Plants.

The Goldfield Preserve responded to the concern about not including the entire planning area in the calculations for the ultimate capacity of the facility by discussing the topographic/hydrologic constraints. The Goldfield Preserve also mentioned that the limited access to parcels does not coincide with the natural fall of the land, the existing five acre or larger lots to the east operate on septic systems, and it would be economically infeasible. In response to the concern about the Nation not being provided with a letter to determine if the proposed facility would adversely affect operation or financial structure of an existing facility, the Goldfield Preserve indicated that a letter and the application were provided to the Nation on May 14, 2007. The Goldfield Preserve mentioned that the Nation had previously stated there was no desire to provide wastewater service to Goldfield. According to the Goldfield Preserve, connection to the existing Nation's facility is infeasible.

In response to the concern raised about failure to include a backup and redundancy plan, the Goldfield Preserve indicated that a contingency plan will be provided under the APP application and that redundancy will be factored into the engineering design. The Goldfield Preserve also responded to the concern about a detailed site plan not being provided. The Goldfield Preserve stated that a conceptual site plan was provided and that an engineered site plan will be provided at the time of the APP and USF Permit applications. With regard to the concern about the company proposed to operate and maintain the facility dissolving in 2010, the Goldfield Preserve indicated that the Arizona Corporation Commission filing will be rectified, the County Improvement District (Maricopa County Board of Supervisors) has oversight, and additional information will be provided at the time of the APP and USF Permits.

The Salt River Pima-Maricopa Indian Community indicated that its four major points of concern with the project include: the potential impacts to drinking water; hydrological connection of the aquifer to the Verde River (surface water quality); lower aquifer unit and the Community's groundwater; and the desert nesting bald eagles. At the March 20, 2008 MAG Water Quality Advisory Committee meeting, the Goldfield Preserve responded to these concerns. In terms of impacting drinking water, the Goldfield Preserve has indicated that the effluent will meet A+ water quality standards, be regulated under an APP Permit, and there will be a requirement for ongoing monitoring and reporting to safeguard down-gradient users.

Also, the Goldfield Preserve responded to the Salt River Pima-Maricopa Indian Community's concern about the hydrologic connection to the Verde River. The Community indicated that the extent of the confining layer (middle unit or clay layer) is not substantiated. The comments further stated that the upper unit is known to be hydrologically connected and that nontreated water (stormwater, irrigation) may enter the river via subflow. In addition, pumping/recharge may impact the Verde River. The concerns of the Community also included the lower aquifer unit and the Community's groundwater and that effluent pumped into the lower unit will eventually end up in the same hydrogeologic unit in the northeastern part of the Community. The response from the Goldfield Preserve included that well tests performed onsite show the aquifer is confined, additional investigation is ongoing, and there are reference materials that support the presence of the confining clay layer. In terms of stormwater and irrigation water percolating into the upper/middle aquifer units and impacting the Verde River, the Goldfield Preserve responded that the issue does not pertain to the 208 application, drainage and irrigation system designs provide for retention of stormwater flows, and this is reviewed and approved through Maricopa County.

The Salt River Pima-Maricopa Indian Community's concerns also included the desert nesting bald eagle. The Community indicated that treated wastewater contains pharmaceuticals and other

byproducts that could have a detrimental impact on fish that eagles depend on for forage. The Community stated that the bald eagles were placed back on the endangered species list for 12 months following a recent court case. The Goldfield Preserve has indicated that this issue does not pertain to the 208 application, there will be no discharges to the Verde River, and the facility will comply with all applicable regulations and standards.

The information provided at the March 20, 2008 MAG Water Quality Advisory Committee meeting from the Goldfield Preserve, Fort McDowell Yavapai Nation, Salt River Pima-Maricopa Indian Community, and the public is attached. In addition, Section 4.5, Small Plant Review and Approval Process, of the MAG 208 Water Quality Management Plan that was provided to the MAG Water Quality Advisory Committee at the March 20, 2008 meeting is attached. Additional materials provided to the MAG Management Committee for its April 9, 2008 meeting are also attached.

Since the Management Committee meeting there has been additional correspondence. These materials include: a letter dated April 7, 2008 from Maricopa County; April 11, 2008 and April 15, 2008 letters from the Salt River Pima-Maricopa Indian Community; April 17, 2008 and April 21, 2008 letters from the Fort McDowell Yavapai Nation; a letter dated April 16, 2008 from the City of Phoenix; a letter dated April 18, 2008 from Maricopa County; a letter dated April 18, 2008 from the City of Glendale; a letter dated April 22, 2008 from the City of Chandler; three letters dated April 21, 2008 and a letter dated April 23, 2008 from James M. Cavanaugh, Chair, MAG Regional Council, Mayor of Goodyear; a memorandum dated April 28, 2008 from Mayor Cavanaugh; a letter dated May 8, 2008 from Maricopa County; a letter dated May 13, 2008 from Mayor Cavanaugh; a letter dated May 13, 2008 from the Arizona Department of Environmental Quality; a letter dated May 16, 2008 from Berry & Damore; and a May 17, 2008 email from a member of the public.

On May 15, 2008, the consultant report prepared for the Salt River Pima-Maricopa Indian Community was mailed to the members of the MAG Regional Council. Since the mailing, the consultant has provided a revised Figure 3 for Appendix A. The consultant report with the revised figure is attached. On May 20, 2008, a letter was received from The Ellman Companies regarding the report. The Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility document and a color copy of the Goldfield Preserve presentations from the March 20, 2008 MAG Water Quality Advisory Committee meeting and the April 9, 2008 MAG Management Committee meeting are located on the MAG website at the following link: <http://www.mag.maricopa.gov/event.cms?item=8025>.

PUBLIC INPUT:

Public comment was received at the March 20, 2008 MAG Water Quality Advisory Committee meeting by six individuals. In addition, two submittals of written comments were received for the meeting.

Written comments were received from Robert and Judy Laughlin. The comments included: inputs were taken and concerns were raised and potentially addressed from the nearby Indian Communities, but they and other property owners are in closer proximity to the facility and have not been informed or consulted and the valid concerns they have are not addressed; there are significant concerns regarding the capacity of the facility and how the effluent will be handled; in the area, all current homeowners utilize private well water from aquifers and the risk/impact of mismanagement or incorrect assumptions regarding the aquifers would have a devastating and potentially life-threatening consequence; surprised that this request appears to be moving forward while concerns from the Indian Communities have not been addressed as well as no consultation or discussion with the other property owners in the area; this community is passionate and active in maintaining the special nature of the area and ensuring that their property is not ruined due to mistakes from a developer looking for quick profits; and hope that MAG will ensure the property owners in the area are heard in this matter.

Written comments were provided by Kathy and Randy Haines, president and secretary of the Goldfield Concerned Citizens' Association, in a letter dated March 20, 2008 addressed to Kevin Chadwick, Division Manager, Maricopa County Environmental Services Department, Water and Waste Management Division. Comments included: they had learned about the Draft Small Plant Review and Approval three days earlier; Mr. Chadwick has made the determination that the application is in technical compliance with the MAG 208 Areawide Water Quality Management Plan and the Small Plant Review and Approval Process; and asking that Mr. Chadwick reconsider that determination in light of facts not previously supplied to him that demonstrate technical noncompliance with the Small Plant Review and Approval Process. Additional written comments included: the application fails to consider all relevant adjacent parcels which is required in the feasibility criteria for small plant applications; and by addressing only why it is not feasible to include in the service area the neighboring five acre lots that already have septic systems, the application fails to address all of the nearby 40 and 80 acre parcels, and therefore fails to satisfy this technical requirement for a Small Plant Review and Approval.

Additional written comments from the Goldfield Concerned Citizens' Association included: Maricopa County has already determined that it is feasible to serve all of the south side of the Beeline Highway with the facility, when the Preserve Development Master Plan was originally approved in 1995; the 1995 DMP still calls for 18 acres of that land to be developed under commercial zoning which has to be sewered; the applicant opposed their efforts to have that commercial zoning eliminated from the DMP; the application is therefore required to provide an analysis whether those nearby 18 acres planned for commercial zoning should be sewered or otherwise join the proposed plant for water quality or economic reasons; the application failed to determine the reactions of nearby landowners which is required for Small Plant Review and Approvals; the statements made in the application are misleading because they were concerns expressed in reaction to a proposed development master plan that only had generic reference to a wastewater treatment plant prior to the MAG 208 application; nearby landowners' reactions have never been solicited or otherwise ascertained with respect to this MAG 208 application, and they have never been informed of an opportunity to express their reactions to it; and as far as they know, they are the only nearby landowner who has seen a copy of the MAG 208 application and that was obtained last week.

The written comments from the Goldfield Concerned Citizens' Association also indicated that nearby landowners have never had an opportunity to express their reactions to a wastewater plant that disposes of effluent by injecting it into the groundwater aquifer; an injection plan that relies on a supposed confining playa deposit to prevent it from polluting either the Verde River or the residents' groundwater sources, which has never been proven to the satisfaction of the residents, Salt River Project, the Fort McDowell Yavapai Nation, or any regulatory authority; a wastewater plant that is not designed to handle development of nearby 40 and 80 acre parcels that are owned by developers, or the planned commercial zoning and uses on the south side; or a wastewater plant promised to be constructed by an entity that has no tangible assets other than raw land encumbered by a mortgage for more than it is worth.

Additional written comments from the Goldfield Concerned Citizens' Association included: the application fails to demonstrate no discharge to US Waters; the Small Plant Review and Approval Process is appropriate only for plants that have no discharge into Waters of the United States; the application makes the claim that it will not discharge into US Waters, however it has not provided any relevant evidence to support it; while technical pollution questions may properly be deferred to the ADEQ permitting process, there must first be a threshold demonstration of no discharge to regulated waters, and the MAG Water Quality Advisory Committee must so conclude, before this small plant can go forward; the sole basis for claiming no discharge rests on the claim that there are playa deposits forming a confining layer where they are present, which will prevent effluent injected into the lower fanconglomerate from discharging into the upper aquifer or the subflow of the Verde River; the only real evidence of a confining playa deposit, that is supposedly 400 feet thick, comes from a single test

well drilled 23 years ago, which was located one mile to one and one-half miles north of the proposed plant; and the hydrology report provides no basis to conclude that it exists in the vicinity of the proposed plant or that it is sufficiently uniform and consistent throughout the two and one-half miles between the plant and the Verde River to prevent any discharge into its subflow.

The written comments from the Goldfield Concerned Citizens' Association also included: the hydrology report itself reveals the inconsistency of the supposed plays deposit; when the Preserve's hydrologist attempted to confirm its existence, the most he could conclude from his one test well in Parcel C was that it appeared to encounter a thin section of the playa deposit and therefore only guesstimates where the playa deposit may be found; this is no basis to conclude there is evidence a uniformly consistent 400 foot confining layer exists to keep the injected effluent from reaching the Verde River; there is not a single well that has been drilled anywhere within a mile of the proposed plant and there are no wells anywhere between the proposed plant and the Verde River; there is no evidence of a playa deposit in the vicinity of the proposed injection wells; the purpose of the hydrology report the developer relies on was to determine existence of adequate groundwater and the effect its pumping would have on available water resources; the hydrology report makes six conclusions, but it makes no conclusion about the existence, uniformity, consistency or thickness of a confining playa deposit, whether it would separate injected effluent from the Verde River subflow, or will not result in any discharges to the Waters of the United States; both Maricopa County and the MAG Water Quality Advisory Committee need much more than lawyer argument and extrapolation to determine that this injection well plant qualifies for the Small Plant Process because there is no possibility of a discharge to US Waters; at a minimum, there needs to be a hydrologic study designed and implemented specifically focused on answering that question, based on test wells surrounding and in the immediate vicinity of the proposed injection wells, as well as between them and the Verde River; and in light of these significant facts that were not previously brought to Mr. Chadwick's attention, they ask that he reconsider his determination that the Preserve's application is in technical compliance with the Small Plant Review and Approval Process.

Comments were provided by Kathy Haines who indicated that wastewater treatment plants should not be approved until input has been received from landowners in the entire Goldfield area and the treatment plant should be built to meet future needs of the entire area. Her comments included: Goldfield has serious infrastructure problems with public water and sewer being among the most crucial; groundwater and hauling are the only sources of water in the area; the developer has refused to consider other water sources for the proposed development; serious and in depth review and method of prevention of contamination of the groundwater supply by the local area septic and water treatment system must be exhausted; since Goldfield Ranch is an isolated island, the 208 considerations of growth needs, constraints, and effects of the wastewater treatment system must be based on the area as a whole; the MAG 208 Plan is an initiative that protects the region; benefits to an area perspective are supported by statements made by Dr. Carole Klopatek which economically will reduce the need for other plants in the future; Chapter 4.6.2, Environmental Consequences of the Point Source Plan, of the MAG 208 Plan includes numerous benefits to the point source as compared to no action, septic, which would strongly support future planning for the whole Goldfield area; examples include with proper regulatory programs, surface water and groundwater quality would be benefitted, groundwater supplies would be improved through additional recharge, there would be significant targeted impact on public health, economic activity would increase, and the system would be available before it can be utilized saving the area substantial future land acquisition costs; MAG should consider the fact that the Goldfield development is reasonably new and broken down septic systems have not yet become a threat to the water supply and these systems will go bad; and MAG would be neglectful of its responsibilities if it does not consider the whole area.

Comments were received from Randy Haines who indicated that the primary purpose of the MAG 208 Small Plant Review and Approval Process is to avoid an uncontrolled proliferation of small plants that could cause problems in the future and should be prevented. Additionally, his comments included: to

accomplish the goal of the Small Plant Process, the applicant is to evaluate whether the nearby area should be sewered and the feasibility of them joining the district; the application fails to evaluate the nearby areas; the only analysis in the application references the neighboring five acre parcels that already have septic systems and suggests these property owners do not want to join the district; the analysis fails to analyze that the 80 acre parcel immediately adjacent to the west of the Goldfield Preserve, which is owned by a developer who has filed in the land use planning process a plan to build two homes per acre; this development would exceed the capacity of the wastewater treatment plant; the analysis fails to address a 40 acre parcel located immediately adjacent to the northeast boundary of this project; there is no analysis of another four 40 acre parcels on the north side of the Beeline Highway; there is no analysis of the three large parcels on the south side of the Beeline Highway, one of which is under the same DMP calling for 18 acres to be zoned commercial that would need to be sewered; the 80 acre parcel would have to be sewered since it would only be one-half acre per home; there is no analysis whether these areas should be sewered and connect to the facility; no analysis of the other large parcels owned by Ellman Companies, two of which are located north of the Beeline Highway and are not mentioned; Parcels C and D owned by Ellman Companies on the south side of the Beeline Highway are excluded with no explanation; and without this analysis, this plant cannot be approved since it has not satisfied that requirement and is not technically sufficient.

Comments were provided by Leslie Cantrell who indicated that she owns a lot in Goldfield Ranch and lives in Scottsdale. Her comments included: she is upset and was never notified; her lot is close to where the developer is building; she is not surprised since she has had to come downtown a couple times on last minute notices; she appreciates the opportunity to inform the Committee of her concerns over the possible contamination of the groundwater and Verde River; there is not adequate capacity or planning for the facility; and the welfare of existing and future homeowners need to be fully addressed honestly and openly.

Comments were received from Deborah Sedlmayer who indicated that she is a neighbor to the project being developed. She indicated that she was not notified of the MAG Water Quality Advisory Committee meeting or the Small Plant Review and Approval Process. Her comments also included: she is in favor of responsible development and believes it enhances her property value; people move to Goldfield Ranch to live with their horses and enjoy the desert; she needs MAG to protect and defend her clean water and asked that the Committee stand tall and not give in to big business and developers; she relies on various government agencies to protect her and that was the reason for their creation; government agencies were not created to improve the tax base for the county or the state; their feedback as property owners is necessary for the Small Plant Process; none of the neighbors she has spoken with were aware of the meeting and this is unacceptable; concern that the plan will have a treatment plant that is too small and no overflow protection; the facility will be a nonmunicipal treatment plant which historically have more accidental releases of raw sewage; they cannot afford to have their groundwater, the Verde River, and the Fort McDowell Yavapai Nation being contaminated; more studies need to be done and more test wells need to be drilled; an independent study needs to be completed to confirm or not confirm the presence of a confining layer; this application needs more research before granting it; more people need to be informed of their right to be heard on the subject; this issue is too important to be decided in haste or in secret; give the Committee, private landowners, the Nation, and Ellman time to get more information and studies; and she requested that the Committee stand to protect their water and air from the potential foulness that the developer purposes by a shortsighted plan and to say no.

Comments were provided by Dr. Steven Feyrer-Melk who indicated that he is a dad of a family that lives in Goldfield Ranch. His comments included: the inconsistencies he hears scare him; property owners are voicing their concerns to the Committee since that is all they can do; he keeps hearing it will be figured out at the next level; the concerns at some point need to be addressed; he hopes the Committee will address injectable wells and clay layers which scare him since his water is between the clay layers; if there is contamination, the first thing he will hear when someone tries to buy his

house is if there is water and what is the quality; he needs some protection and he hopes the Committee has the foresight and the determination to give that assurance; when the DMP was approved in 1995, which included a treatment plant and golf courses, he sat in the Maricopa County Board of Supervisors meeting where they basically said it could never be built; we are basing what is happening today on a pipe dream; right now there is R-190 zoning, which is one house per five acres with septic tanks; everyone should be involved if there is a better way to keep the water clean; nobody wants to be polluting the air; he sees the bald eagles and his kids have names for them; it affects everyone and the future if the Verde River is polluted; he is against the approval of the plant; it is so far off from the reality of what it will be like in the area; and he does not see how months of planning and changing will make this any better for the residents of Goldfield Ranch.

Comments were received by Doug Reiner who indicated that he is a resident in Goldfield Ranch and a neighbor of the proposed development. His comments included: his confidence in this project has not grown; the most powerful recommendation has come from legal rather than technical aspects of the proposal; the technical questions being raised are substantial and the logic that supports failing to answer those questions is thin; and he respectfully requested that the project be denied at this time in favor of some sincere and in depth evaluation.

Public comment was received at the April 9, 2008 MAG Management Committee meeting by two individuals. In addition, six submittals of written comments were received for the meeting.

Written comments were provided by Kathy and Randy Haines, president and secretary of the Goldfield Concerned Citizens' Association, in a letter dated March 31, 2008 addressed to Wendy Riddell, Berry & Damore, LLC. The comments included concern over information provided to the MAG Water Quality Advisory Committee with regard to the development plans of Grayhawk Development for its 80 acre parcel and the 1995 Development Master Plan that remains in effect for the 125 acres lying between Preserve Parcels C and D.

Written comments were provided by Kathy and Randy Haines, president and secretary of the Goldfield Concerned Citizens' Association, in a letter dated April 2, 2008 addressed to Wendy Riddell, Berry & Damore, LLC. The comments included concern over information provided to the MAG Water Quality Advisory Committee with regard to a meeting of the Technical Advisory Committee of the Maricopa Planning and Development Department. The comments indicated that they were not given notice at that meeting of the inadequate capacity of the plant; the client's intent to inject the treated sewage into the aquifer; the client's reliance on an alleged confining clay layer to protect the Verde River from being polluted by this plant; the fact that the client had not made the required analysis of whether the plant should be designed to accommodate future development of nearby parcels; the fact that MAG's 208 Plan required the applicant to ascertain the views of neighboring landowners which has never been done; or that there was a scheduled hearing on the application, at which public participation was welcome. They requested that Ms. Riddell provide the Goldfield Concerned Citizens' Association notice and copies of every communication that her client, and/or any of its agents, has with any governmental (or public utility) office or official that has any bearing on the development of the Preserve at Goldfield Ranch.

Written comments were received on April 7, 2008 by Suzanne Splettstoesser, Goldfield resident. Her comments included: concern there is no alternative space provided on the plans; the system for the Preserve is a relatively new concept and she sees no area left for leakage or any other problem that could arise and necessitate another area being used after contamination of one area; flash flooding is not addressed and this should be a major concern because of the parasite control that may necessitate, especially when so close to washes; an inquiry of whether the site will be high powered reverse osmosis and then hydrogen peroxide and ultra violet light followed by a filter of sand and rock; sand and rock could leave an area that is not effective in sealing in case of groundwater infiltration; a cohesive soil may be better when washes are close; it may be essential to explore the function of

this sewer system with regard to drainage of groundwater during or after heavy rains; the site is a very vulnerable location; overuse of the system or a seam leak or any leak could cause serious damage to the local river; an inquiry of whether separate piping for gray water has been explored which could be put into the requirements for building all the houses; and it would be excellent to use it for any outside irrigation. She also asked how the sewer system for the Preserve will be monitored and how often. She inquired about the ability to get a report of the inspections.

Written comments were provided on April 7, 2008 by Deborah Sedlmayer who indicated that she is amazed and frustrated by Ellman's representatives frequent slide shows that are, for the most part, unchanged in the last two years. Her comments included: there are no details on the facility; the plant is placed where expansion is impossible; they display no new information when asked questions; they fail to answer basic questions; it is time for her government to stop the slide show and demand answers with detailed substance; the Ellman group may be planning a responsible development, of which they would be in favor, but they cannot reach a decision with sketchy ideas and dreams; concrete plans to determine if their plans will harm the air quality are needed; how can the residents decide without details if their water quality or quantity will be assured and never compromised; these questions are important to the National Forest, the Nations, and the neighbors at Goldfield, now and in the future; now is the time to demand detailed answers to all the questions; and stop the shuffle slide show and protect the Valley's water, the Nations, the National Forest, and their neighborhood, they deserve nothing less.

Written comments were provided by Kathy and Randy Haines, president and secretary of the Goldfield Concerned Citizens' Association, in a letter dated April 8, 2008. The comments included: an analysis of nearby areas must be done; nearby areas could be included and should be sewerred; and plants should be designed for future expansion, this plant is not. The comments indicated that the application fails to consider all relevant adjacent parcels including the Grayhawk 80 acre parcel; the Fort McDowell Yavapai Nation 600 acres to the west; Parcels C, D and 18 acres of commercial; Ellman's other parcels; and seven other large nearby parcels. The comments also stated that the Preserve sewage plant cannot be expanded because of the location where it would be located. Additional comments included: the MAG 208 Water Quality Management Plan requires developers to analyze potential nearby developments and to tell MAG whether their sewage treatment plant could be expanded; these requirements are necessary so that MAG can accomplish its regional planning function; it will take an engineering analysis to provide MAG with the appropriate answers; MAG must require the applicant to provide the analysis that is required by the MAG 208 Plan; in light of the serious deficiencies, this application should not be approved until it contains all the analysis that is required by the MAG 208 Plan; and without the analysis, it does not comply with the plan and cannot be approved.

Written comments were received from Salt River Project in a letter from David C. Roberts dated April 8, 2008. The comments included: it has come to their attention that several members of the MAG Water Quality Advisory Committee, at their March 20, 2008 meeting, had questions related to the extent of the playa deposit (Pemberton Formation) purported by the applicant to extend below the Preserve property; SRP does have an opinion on the extent of this playa deposit as it relates to pumping associated with the water supply wells being proposed for the Preserve; after reviewing the applicant's hydrology report used to support its Application of Analysis of Assured Water Supply, a report by Skotnicki and others (Arizona Geological Survey) and the geologic logs for 16 wells in the vicinity of the Preserve, it is SRP's opinion that the playa deposit does not underlie the entire basin, or the entire property in question; Figure 3 of the Skotnicki report shows the eastern extent of the playa to terminate along a north-south line within the Fort McDowell Indian Reservation; SRP conducted its own review of 16 well logs to better define the extent of the playa and believes that it extends into the Preserve, but only into the northwest corner of the property; of the 16 wells reviewed, only two encountered clay; there were no clay deposits in the other 13 well logs; and this leads SRP to conclude that the applicant's argument that the playa forms a barrier is flawed, and that there is a hydraulic connection between the aquifer and the subflow of the Verde River.

Comments were received by Randy Haines who indicated that he is a resident of Goldfield Ranch. His comments included: before a sewage treatment plant can be approved, the MAG 208 Plan requires an analysis of whether nearby areas lend themselves to being included within its service area and this has not been done; no analysis has been done on the neighboring large undeveloped parcels, some of which have development plans that would require sewer systems, not septic systems; not included in the sewage treatment plant are 80 acres owned by Grayhawk Development which has a plan of up to two homes per acre, 600 acres owned by the Fort McDowell Yavapai Nation in fee which could be sold to a developer in the future, and part of the Preserve Development located south of the Beeline Highway; there is no analysis as to why these areas should not be included in the treatment plant; and thirteen years ago Maricopa County determined that it was feasible for the land south of the Beeline Highway to be included in the sewer system with a plant located in the Preserve and one-half mile from the proposed facility, to handle 1.2 million gallons of sewage.

Additional comments from Randy Haines included: an analysis would show that the plant capacity would need to be more than doubled to handle an additional 500,000 gallons per day; it is only a 400,000 gallons per day plant and it would have to be 900,000 gallons per day to handle the development that could occur in those large parcels in the next 20 years; the MAG 208 Plan requires this analysis be done to prevent an uncontrolled proliferation of small plants; the 208 Plan seeks to avoid that proliferation by ensuring any new plant is designed to be capable of enlargement to serve the needs of the region for the next 20 years, but there has been no analysis; the application does not address the future needs of the large parcels mentioned earlier or the 18 acres of commercial development south of the Beeline Highway; Ms. Riddell misspoke when she said the amendment eliminated the 18 acres of commercial - the amendment preserved it; the developer did not provide an analysis for future expansion; the site is located on a narrow peninsula surrounded by dropoffs and washes; there is no room to expand the plant nor double its size; and this analysis needs to be done before approval can be given.

Comments were received from Kathleen Haines who indicated that the community of Goldfield Ranch does not want a facility that cannot be expanded or the future needs to go unanalyzed. Additional comments included: the residents of Goldfield Ranch would love to have a great facility; every developer wants to build a facility for its needs only and profits must be maximized; this is why there is a county plan that requires an analysis of future needs and regional impacts; MAG's purpose is regional planning, not just determining if a plant is okay for this particular development; the plant may be sufficient to serve the Preserve and a few other parcels, but no others; there is no land available for safety measures or future needs; the previous plant location was not so restrictive; the MAG 208 Process aims to prevent an uncontrolled proliferation of small plants that could cause problems; the Goldfield Preserve plan with insufficient capacity and no enlargement possible is not in conformance with the MAG 208 Plan; adoption of such a plant is likely to necessitate three plants within three miles; and this cannot move forward until it is amended to conform to MAG's criteria. She requested that the MAG Management Committee not support the proliferation of small plants in their 80 percent undeveloped desert community.

Public comment was received at the May 1, 2008 MAG Water Quality Advisory Committee meeting under Call to the Audience by one member of the public. The comments were received from Kathy Haines who indicated that the objective of the MAG public participation program of the MAG 208 Water Quality Management Plan is to solicit from the public their opinions and perception of problems, issues, concerns, and needs. Her comments also included: public input was not solicited for the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility; she can provide critical facts about the Goldfield project; the site for the facility has moved and is now wedged on a peninsula surrounded by jurisdictional washes; the facility will only meet one third of the future needs; sludge will be hauled off-site; public input is critical; the public participation program needs to have prominent indication of public solicitation; and MAG needs to do more than have a passive website.

Written comments were received on May 17, 2008 from Lori and Bill Northrup who indicated that they are owners of one of the largest homes/parcels in the Goldfield Ranch development. They stated that they are very concerned that SRP and Fort McDowell Yavapai Nation's concerns on hydrology and possible contamination appear to be very well founded. They indicated that the plan should not be approved by the Water Quality Advisory Committee or by MAG until those concerns are resolved to the satisfaction of the Fort McDowell Yavapai Nation, Salt River Pima-Maricopa Indian Community and their engineers and hydrologists.

PROS & CONS:

PROS: Approval of the proposed Preserve at Goldfield Ranch Water Reclamation Facility as part of the MAG 208 Water Quality Management Plan would make the facility consistent with the MAG 208 Plan. The MAG 208 Water Quality Management Plan is the key guiding document used by Maricopa County and the Arizona Department of Environmental Quality in granting permits for wastewater treatment systems in the MAG region.

CONS: Currently, the Fort McDowell Yavapai Nation has expressed concern about the effluent from the proposed Preserve at Goldfield Ranch Water Reclamation Facility, when recharged, harming the Nation's drinking water. The Nation is also concerned about the lack of hydrogeologic information, a backup and redundancy plan, a detailed site plan, and committed treatment process. Additional concerns included facility financing, not sizing the facility for the entire planning area, and the company proposed to operate and maintain the facility is set to dissolve in 2010. The Goldfield Preserve has indicated that the questions raised will be addressed during the permitting process. The facility will be required to obtain an Aquifer Protection Permit from the Arizona Department of Environmental Quality and the Underground Storage Facility Permit from the Arizona Department of Water Resources. The Goldfield Preserve indicated that the facility was not sized for the entire planning area due to topographic/hydrologic constraints. In terms of the company proposed to operate and maintain the facility, the Goldfield Preserve has stated that the County Improvement District (Maricopa County Board of Supervisors) has oversight.

Currently, the Salt River Pima-Maricopa Indian Community also has concerns about the project including: the potential impacts to drinking water; hydrological connection of the aquifer to the Verde River (surface water quality); the lower aquifer unit and the Community's groundwater; and the desert nesting bald eagles. The Goldfield Preserve indicated that well tests performed onsite show the aquifer is confined. In addition, the Goldfield Preserve stated that the effluent from the facility will meet A+ water quality standards, be regulated under an APP Permit, and there will be a requirement for ongoing monitoring and reporting to safeguard down-gradient users. The Goldfield Preserve added that there will be no discharges to the Verde River and the facility will comply with all applicable regulations and standards. At the April 9, 2008 MAG Management Committee meeting, the Committee recognized the commitment volunteered by the developer to treat the effluent at a level higher than required by the state: 10 mg/l for total suspended solids, 10 mg/l for biochemical oxygen demand, 5 mg/l for total nitrogen, and 1 mg/l (85 percent efficiency) for total phosphorus.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The proposed Preserve at Goldfield Ranch Water Reclamation Facility is needed to accommodate the Preserve at Goldfield Ranch Development.

POLICY: The MAG 208 Water Quality Management Plan is the key guiding document used by Maricopa County and the Arizona Department of Environmental Quality in granting permits for wastewater treatment systems in the MAG region. Approval of the facility would enable the facility to be deemed consistent with the MAG 208 Plan. Consistency is necessary for permit approvals.

ACTION NEEDED:

For information, discussion, and possible approval of the MAG Management Committee recommendation: approval of the proposed Preserve at Goldfield Ranch Water Reclamation Facility as part of the MAG 208 Water Quality Management Plan recognizing the commitment volunteered by the developer to treat the effluent at a level higher than required by the state: 10 mg/l for total suspended solids, 10 mg/l for biochemical oxygen demand, 5 mg/l for total nitrogen, and 1 mg/l (85 percent efficiency) for total phosphorus.

PRIOR COMMITTEE ACTIONS:

Management Committee: On April 9, 2008, the MAG Management Committee recommended approval of the proposed Preserve at Goldfield Ranch Water Reclamation Facility as part of the MAG 208 Water Quality Management Plan recognizing the commitment volunteered by the developer to treat the effluent at a level higher than required by the state: 10 mg/l for total suspended solids, 10 mg/l for biochemical oxygen demand, 5 mg/l for total nitrogen, and 1 mg/l (85 percent efficiency) for total phosphorus, with 13 members voting no (*italics*) and one member abstaining (**shaded**).

MEMBERS ATTENDING

Charlie McClendon, Avondale, Vice Chair	Darryl Crossman, Litchfield Park
<i>George Hoffman, Apache Junction</i>	<i>Christopher Brady, Mesa</i>
<i>Jeanine Guy, Buckeye</i>	Jim Bacon, Paradise Valley
Jon Pearson, Carefree	<i>Carl Swenson for Terry Ellis, Peoria</i>
Usama Abujbarah, Cave Creek	<i>Karen Peters for Frank Fairbanks, Phoenix</i>
Mark Pentz, Chandler	<i>John Kross, Queen Creek</i>
Spencer Isom for B.J. Cornwall,	<i>Bryan Meyers, Salt River Pima-Maricopa</i>
El Mirage	<i>Indian Community</i>
<i>Phil Dorchester, Fort McDowell</i>	<i>Brad Lundahl for John Little, Scottsdale</i>
<i>Yavapai Nation</i>	Prisila Ferreira, Surprise
# Kate Zanon, Fountain Hills	<i>Amber Wakeman for Charlie Meyer, Tempe</i>
# Lynn Farmer, Gila Bend	Chris Hurley for Reyes Medrano, Tolleson
<i>Joseph Manuel, Gila River Indian</i>	Gary Edwards, Wickenburg
<i>Community</i>	* Lloyce Robinson, Youngtown
<i>George Pettit, Gilbert</i>	* Victor Mendez, ADOT
Ed Beasley, Glendale	Kenny Harris for David Smith,
Mark Brown for Brian Dalke, Goodyear	Maricopa County
<i>Mark Johnson, Guadalupe</i>	David Boggs, Valley Metro/RPTA

* Those members neither present nor represented by proxy.

Participated by telephone conference call.

+ Participated by videoconference call.

Water Quality Advisory Committee: On March 20, 2008, the MAG Water Quality Advisory Committee recommended approval of the proposed Preserve at Goldfield Ranch Water Reclamation Facility as part of the MAG 208 Water Quality Management Plan, with seven members voting no (*italics*).

MEMBERS ATTENDING

<i>Roger Klingler, Scottsdale, Chair</i>	Robert Hollander, Phoenix
<i>Robin Stinnett for Marilyn DeRosa, Avondale</i>	Jim Swanson for Rich Williams Sr., Surprise
<i>David Johnson for Lucky Roberts, Buckeye</i>	David McNeil, Tempe
# Jacqueline Strong, Chandler	Dale Bodiya for Kevin Chadwick, Maricopa
# <i>Dave Emon, El Mirage</i>	County
	John Boyer, Pinnacle West Capital

Stephanie Prybyl for Lonnie Frost, Gilbert
Russell Fletcher for Chris Ochs, Glendale
David Iwanski, Goodyear
Bill Fick for Bill Haney, Mesa
Stephen Bontrager, Peoria

* Ray Hedrick, Salt River Project
Erin Taylor, U of A Cooperative Extension

*Those members neither present nor represented by proxy.
#Attended by telephone conference call.

Water Quality Advisory Committee: On December 21, 2007, the MAG Water Quality Advisory Committee continued the Draft Small Plant Review and Approval for 90 days with a goal of encouraging the parties to begin their first meeting within 30 days, with six members voting no (*italics*).

MEMBERS ATTENDING

Roger Klingler, Scottsdale, Chair
Robin Stinnett for Marilyn DeRosa, Avondale
Lucky Roberts, Buckeye
Jacqueline Strong, Chandler
Dennis Teller, El Mirage
Stephanie Prybyl for Lonnie Frost, Gilbert
Chris Ochs, Glendale
David Iwanski, Goodyear
Bill Haney, Mesa
Stephen Bontrager, Peoria

Robert Hollander, Phoenix
Rich Williams Sr., Surprise
David McNeil, Tempe
Kevin Chadwick, Maricopa County
* John Boyer, Pinnacle West Capital
Jim Kudlinski for Ray Hedrick, Salt River
Project
Erin Taylor, U of A Cooperative Extension

*Those members neither present nor represented by proxy.
#Attended by telephone conference call.

Water Quality Advisory Committee: On October 22, 2007, the MAG Water Quality Advisory Committee tabled the Draft Small Plant Review and Approval for 60 days to allow the applicant to work cooperatively with the Fort McDowell Yavapai Nation to address the concerns raised by the Nation in its October 2, 2007 letter and to also work cooperatively with the Salt River Pima-Maricopa Indian Community, with three members voting no (*italics*).

MEMBERS ATTENDING

Roger Klingler, Scottsdale, Chair
* Marilyn DeRosa, Avondale
Lucky Roberts, Buckeye
Jacqueline Strong, Chandler
Dennis Teller, El Mirage
Lonnie Frost, Gilbert
Chris Ochs, Glendale
David Iwanski, Goodyear
Bill Haney, Mesa
Stephen Bontrager, Peoria

Robert Hollander, Phoenix
Jim Swanson for Rich Williams Sr., Surprise
David McNeil, Tempe
Kevin Chadwick, Maricopa County
John Boyer, Pinnacle West Capital
Jim Kudlinski for Ray Hedrick, Salt River
Project
Erin Taylor, U of A Cooperative Extension

*Those members neither present nor represented by proxy.
#Attended by telephone conference call.

CONTACT PERSON:

Julie Hoffman, MAG, 602-254-6300



THE ELLMAN COMPANIES
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VIA FACSIMILE (480) 362-7593 and U.S. MAIL

May 20, 2008

President Diane Enos
Salt River Pima-Maricopa Indian Community
10005 E. Osborn Road
Scottsdale, Arizona 85256

RE: MAG 208 - The Preserve at Goldfield Ranch

Dear President Enos:

We are in receipt of the report prepared for you by HDR Engineering, Inc. dated May 15, 2008 ("SRP-MIC Report"). This report sets forth five interrelated issues relevant to the construction and operation of the proposed small plant at The Preserve at Goldfield Ranch. We believe it is important to recognize that The Preserve at Goldfield Ranch is being designed to minimize impact on our precious regional water resources and habitat environments. Please accept this letter as our responses to each of the five issues. For ease of review, we have generally outlined each issue identified in the SRP-MIC Report and immediately followed it with our response.

1.3.1 Plant Location and Local Features

Issue: The SRP-MIC Report states "At build-out capacity, unimpeded wastewater overflows from the proposed plant could reach the river within 6 to 18 hours of plant failure". The SRP-MIC Report further states that HDR has the same concerns related to potential failure of the power source to the proposed lift stations

Response: Maricopa County Environmental Services Department ("MCESD") per Maricopa County ("County") subdivision regulations requires review of all lift station designs and requires a redundant power supply to convey flows. This County review is conducted as part of the process for the design and engineering of subdivision related infrastructure improvements. Enforcement is managed through the Approval to Construct and Approval of Construction review by MCESD.

It is our commitment to you and other members of MAG Regional Council that we will submit construction and engineering plans and specifications to the County that will include the appropriate provisions of redundant power and retention for the treatment facility and the sewage lifts stations throughout the community. Further, it is also our commitment to you that the construction and engineering plans and specifications will include provisions that the total plant holding capacity will be adequate to handle emergency loads equal to two times the average daily operating level of the plant.

Ellman Capital Corporation • Ellman Equities, Inc. • Ellman Holdings, Inc. • Ellman Management Group, Inc. • Ellman Realty Corporation • Ellman Residential Development, Inc.
Ellman Media, LLC • EL Media Holdings Co Canada • Westgate Development Group, LLC • HE Capital, LLC • Goldfield Preserve, LLC • FHE Investment Company, LLC

2850 East Camelback Road Suite 110 Phoenix, Arizona 85016 602 840 3000 FAX 602 840 8101
www.ellmanco.com • www.westgateaz.com

1.3.2. Service Area

Issue: The SRP-MIC Report suggests the 208 Amendment Service Area may be eligible for expansion to serve the regional wastewater treatment needs of additional development within the entire area.

Response: Originally, the Water Reclamation Facility, including related infrastructure, (collectively "WRF") was designed to handle the flow requirements for the property commonly known as Parcel A, consisting of approximately 1,680 acres. In response to the concerns expressed by Fort McDowell Yavapai Nation ("FMYN"), the service area for the 208 Amendment was expanded to include an additional 222 acres representing Parcel B and additional properties acquired by the Developer subsequent to the filing of the 208 Amendment.

Heretofore, we have not included the two parcels located south of Hwy 87 in the 208 Amendment Service Area. These two parcels are commonly known as Parcels C and D and together total approximately 350 acres. Indeed, the WRF has the capacity in its current configuration to serve Parcels C and D. At your request, we will expand the Service Area of the 208 Amendment to include Parcels C and D.

In the event that other property owners within the greater Goldfield Ranch area express an interest to connect and be included in the 208 Amendment Service Area, now or in the future, the site and related infrastructure would need to be expanded to accommodate their request. There is sufficient property surrounding the plant site to accommodate an expansion. Upon receipt of such request for expansion, all related expansion costs of the 208 Amendment Service Area and the WRF, including but not limited to all collection and distribution infrastructure, would be borne by the requesting party and negotiated directly with the CID.

1.3.3 On-Site Treatment

Issue: The SRP-MIC Report suggests that there is a high likelihood of the development of commercial property along Hwy 87 within the Parcels C and D and there is concern that such commercial property would be served by septic systems.

Response: As referenced in the response to Issue 1.3.2, we have committed to include Parcels C and D within the 208 Amendment Service Area.

Further, Maricopa County approved the Amendment to the Development Master Plan for The Preserve at Goldfield Ranch on property owned by the Developer that specifically addresses the locations of any special use permits and limits the uses to a resort / spa, a clubhouse facility, and an equestrian facility on Parcel A, and an equestrian facility on Parcel C. No other commercial land uses or special use permits are allowed within the Amended Development Master Plan area.

As an additional measure of protection for this issue, Maricopa County does not allow for the development of any commercial property on septic systems.

1.3.4 Potential Water Quality Impacts from Injection

Issue: The SRP-MIC Report suggests that a hydrological connection may exist between two aquifers in the region. And, if such a connection exists, the production of Class A+ effluent water would not be sufficient to satisfy SRP-MIC concerns related to artificial recharge.

Response: Whether or not there is a determination of a connection between the aquifers, we commit to meet "surface water quality standards" for effluent waters to meet environmental concerns listed in Arizona Administrative Code, Title 18, Chapter 11 for this section of the Verde River.

1.3.5 Owner/Operator Financial Capability

Issue: The SRP-MIC Report suggests that the on-going operation and maintenance of the plant and related infrastructure will be "relatively expensive for a CID". The SRP-MIC Report further acknowledges that while the Developer is responsible to supplement the financial security of the CID, the length of time for such an obligation has not been provided.

Response: The Developer is committed, and will be required by the Maricopa County Board of Supervisors, serving as the Board of Directors for the CID, to provide adequate financial assurances and supplements to meet the operating and maintenance requirements of the CID during the start up phases and until the CID experiences a level of subscriptions necessary to sustain itself on an on-going basis. An operator will be recruited and hired who has proven experience associated with our treatment and injection recharge systems.

We thank you for the opportunity to respond to the issues raised in the HDR Report and would be happy to meet with you directly to address any of these issues further.

Sincerely,

GOLDFIELD PRESERVE DEVELOPMENT, LLC



Don Kile
President

cc: Mayor James M. Cavanaugh, Chairman of MAG Regional Council (via email)
Dennis Smith, MAG Director (via email)

Julie Hoffman

From: Lori Northrup [lori@northrup.com]
Sent: Saturday, May 17, 2008 6:47 PM
To: Julie Hoffman
Subject: Concerns over Goldfield Ranch Preserve Development water situation
Importance: High

Dear Julie:

As owners of one of the largest homes/parcels in the Goldfield Ranch development we are very concerned that SPR and FMYN's concerns on hydrology and possible contamination appear to be very well founded, and that the plan should not be approved by the Water Quality Advisory Committee or by MAG until those concerns are resolved to the satisfaction of FMYN, SRP-MIC and their engineers and hydrologists.

Please keep us informed of your progress on this matter.

Sincerely,

Lori & Bill Northrup
22805 E. Kalil Rd.
Goldfield Ranch
Ft. McDowell, AZ 85264

Mailing address:
P.O. Box 6
Ellicottville, NY 14731

SRP-MIC
Goldfield Ranch Small Plant Review Technical Support

Executive Summary
Final Report: May 15, 2008

Prepared for:
Salt River Pima-Maricopa Indian Community

Prepared by:
HDR Engineering, Inc
3200 E Camelback Road, Suite 350
Phoenix, Arizona 85018



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1.0 Executive Summary

1.1 Purpose

HDR Engineering, Inc. (HDR) was hired by the Salt River Pima-Maricopa Indian Community (SRP-MIC) to provide third party technical review services of the Small Plant Review and Approval request to the Maricopa Association of Governments (MAG) for the proposed water reclamation facility associated with The Preserve at Goldfield Ranch.

1.2 Summary Assessment

It is HDR's assessment that wastewater collection and treatment for the entire area (The Preserve and Goldfield Ranch) is in the best interest of Maricopa County and all users and beneficiaries of the Verde River. The proposed plant should not be considered in a similar manner as other Small Plants that have been approved that are serving relatively flat areas away from perennial streams. The potential for surface water impairment with raw sewage is much higher than with other plants because of the steep topography and proximity of the plant to the Verde River. It is our judgment that the proposed plan for on-site treatment (septic systems) for parcels C and D is not in the best interest of the protection of regional water quality. Available hydrogeologic information is inconclusive regarding an impeding layer that would prevent injected reclaimed water from reaching the subflow of the Verde River. If the injected reclaimed water reached the subflow of the Verde River, it would need to meet surface water quality standards for the respective reach of the river. Finally, the proposed collection system, treatment plant, reclaimed water distribution system, and management of excess reclaimed water by injection will be expensive to operate, maintain, repair, and replace for a County Improvement District (CID) that will rely heavily on approximately 1,000 single-family home sites.

The MAG 208 *Water Quality Management Plan* is the County's first defense against degradation of water quality. It is entirely appropriate and expected that

MAG would apply increased scrutiny to a proposed plant that will be owned and operated by a CID, is very close to a valuable perennial stream, and for which there is limited ability to cost-effectively mitigate service failures to prevent raw sewage from entering the river. At a minimum, according to the intent of the MAG 208 planning process, the plant should be planned and sized to treat sewage from the entire area, and further assessment regarding the categorization of the plant (based on the potential for Verde River water quality impacts) should be made before MAG approves the plant for amendment into the *Water Quality Management Plan*. Regional wastewater collection and treatment is the best approach to protecting water quality, and more consideration needs to be given to the risks posed by the location of the proposed plant and the nature of the wastewater flow and quality characteristics it may be processing on startup or in the future.

1.3 Discussion

For Small Plants outside of Municipal Planning Areas (MPAs) to be approved for inclusion in the MAG 208 *Water Quality Management Plan* and construction, the following general criteria must be met:

- The Applicant must obtain the review and comment of any municipality whose Small Plant planning Area is within 3 miles of the proposed plant location or service area.
- The proposed plant must not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants.
- The proposed plant must be consistent with State and County regulations and other requirements.
- The proposed plant must otherwise be consistent with the MAG 208 Plan.
- The proposed plant must be either evaluated and approved or it must be modified by the Maricopa County Environmental Services Department.

A number of specific criteria for the assessment of feasibility for a Small Plant outside of an MPA also exist. This report provides a detailed review of the

Applicant's response to each criterion, as well as a review of the SRP-MIC's concerns, and HDR's assessment of Applicant's compliance with the MAG 208 review criteria. As of May 15, 2008, five interrelated issues relevant to the protection of water quality remain unresolved by the Applicant, and, therefore, render the proposed plant inconsistent with the MAG 208 *Water Quality Management Plan*:

- Plant location and local features
- Service area
- On-site treatment
- Potential surface water quality impacts from injection
- Owner/Operator financial capability

1.3.1 Plant Location and Local Features

The unique features of the proposed plant's location relative to the Verde River, the surrounding topography, and the increased risk it poses to surface water quality standards established for the protection of wildlife and humans have not been adequately considered. While the proposed plant will have redundant power supply and on-site retention, a service failure of it or of the associated sewage lift stations throughout the community (which are not proposed to have redundant power or retention) would result in a sewage overflow that could make its way to the Verde River. The proposed plant location is 2.5 miles and 210 feet in elevation from the Verde River. At build-out capacity, unimpeded wastewater overflows from the proposed plant could reach the river within 6 to 18 hours of plant failure.

1.3.2 Service Area

The intent of the MAG 208 review process, as set forth by Section 208 of the Clean Water Act (CWA), is to protect water quality through a regional planning process. The MAG 208 process has also incorporated Growing Smarter Legislation principles to strengthen the regional planning role of MAG for multiple benefits to current and future generations of inhabitants. The *Water*

Quality Management Plan and related amendment process for Small Plants is intended to prevent the “uncontrolled proliferation of Small Plants that could cause problems in the future.” The proposed plant will serve a limited area within a larger and completely enveloped county island containing existing development with septic systems and plans for additional development (including the Grayhawk proposed development west of Goldfield Ranch) that will require or could benefit from sewer collection and treatment. Not providing sewer service to the entire area will encourage the proliferation of Small Plants and septic systems in the area that increase the risk to regional water quality.

1.3.3 On-Site Treatment

The proposed plant will receive wastewater from residential and commercial properties. The Applicant has indicated that at least one commercial facility, a resort/spa, may be included. Land along State Route 87 will be highly desirable for commercial facilities, because these are the last opportunity for such facilities for travelers leaving the urban core and the first opportunity for those entering the urban core, along the highway. The Applicant currently proposes that parcels C and D, which will be the most desirable for commercial facilities, will be served by septic systems (on-site treatment). The Applicant states an intention to develop parcels C and D with single-family home sites in excess of 1 acre. However, Special Use Permits can be obtained from Maricopa County and can be used to respond to consumer demand, to effectively change the zoning and land use from residential to commercial. Such changes are not subject to review by the MAG 208 process. Regardless of what type of development occurs along State Route 87 on parcels C and D, use of septic systems as the on-site wastewater treatment technology is not a sound plan for protection of regional water quality. However, inclusion of significant commercial wastewater flows into the proposed plant will likely cause wide fluctuations in influent wastewater quality that may challenge the treatment capabilities of the proposed biologically active plant.

1.3.4 Potential Surface Water Quality Impacts from Injection

The proposed water reclamation facility at The Preserve at Goldfield Ranch initially appears to meet the criteria for a Small Plant (less than 2.0 MGD and not requiring a CWA discharge permit) that is outside of an MPA but within 3 miles of cities or towns that have Small Plant planning areas. In Arizona, the CWA discharge permit is called an Arizona Pollutant Discharge Elimination System permit, or “AZPDES” permit, and is used to maintain and avoid degradation of surface water quality.

Management of the unusable portion of the proposed plant’s reclaimed water through injection wells will require compliance with surface water quality standards if it is demonstrated that the injected water mixes with the subflow of the Verde River. That is, production of Class A+ reclaimed water will not be sufficient, if this is the case. Review of hydrogeologic data from the Arizona Department of Water Resources (ADWR) and Salt River Project (SRP) indicates that the existence of a continuous clay layer that would prevent or retard injected Class A+ reclaimed water from entering the Verde River is inconclusive. Further, the analysis of the 72-hour aquifer test conducted in 1985 at The Preserve at Goldfield Ranch reveals a response more typical of a leaky confined aquifer or proximity of a recharge boundary, not of a confined aquifer. In this circumstance, ADEQ will likely require compliance with surface water quality criteria for the reach of the Verde River into which the discharge would be received. At ADEQ’s discretion, these criteria could become part of the Applicant’s Aquifer Protection Permit (APP), or could be implemented through a separate AZPDES permit. In either case, the potential exists for surface water quality standards (derived from the CWA) to be included in a permit. Therefore, a determination needs to be made at this point in the planning process if the Goldfield WRF meets the MAG 208 small plant designation before an application for amendment to the MAG 208 *Water Quality Management Plan* can be made.

1.3.5 Owner/Operator Financial Capability

While the Applicant has demonstrated financial capability to build the plant, the operation, maintenance, and repair and replacement of infrastructure and appurtenances for the collection system, plant, and the distribution (reuse) and management (injection and recovery) system of reclaimed water will be relatively expensive for a CID made up largely of residential customers (approximately 1,000 service connections) to continuously fund. For example, if an aquifer storage and recovery well (as is implied by Applicant's Figure 5) were to fail and need to be replaced, it would cost the CID approximately \$1 million to replace it. Based on historical performance of wells in the Maricopa County area, injection wells need to be rehabilitated every 3 to 5 years at an average cost of \$100,000. Also, the increased risk to surface water quality translates to an increased risk of violation and fines imposed on the CID. The Applicant has stated that the developer will supplement the financial security of the CID, but does not indicate for how long. Regardless, this issue does not appear to be adequately addressed by the Applicant, and there appears to be the potential for a significant financial burden to the future CID.

1.4 Conclusion

While the Applicant has successfully addressed some of the issues pertinent to the MAG 208 process, there are key components in the application that have not been adequately addressed. Consequently, the application is inconsistent with the MAG 208 *Water Quality Management Plan*.

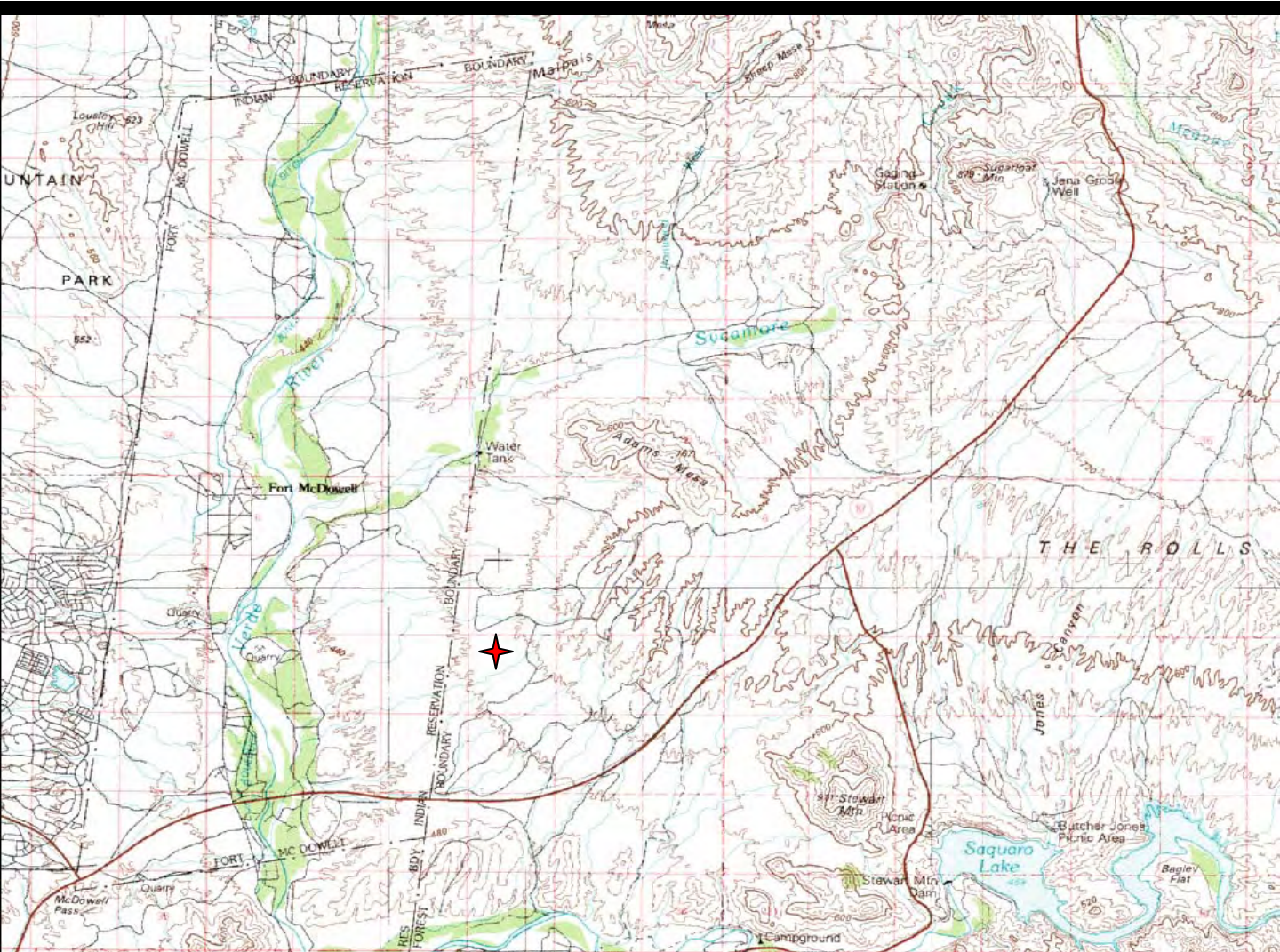


Goldfield Ranch Small Plant Review

Technical Support

Final Report

May 15, 2008



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SRP-MIC
Goldfield Ranch Small Plant Review Technical Support

Final Report: May 15, 2008

Prepared for:
Salt River Pima-Maricopa Indian Community



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ACRONYMS AND ABBREVIATIONS

AAC	Arizona Administrative Code
ACC	Arizona Corporation Commission
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
APP	Aquifer Protection Permit
ASR	Aquifer Storage and Recovery
AZPDES	Arizona Pollutant Discharge Elimination System
CID	County Improvement District
CWA	Clean Water Act
FMYN	Fort McDowell Yavapai Nation
MAG	Maricopa Association of Governments
MCESD	Maricopa County Environmental Services Department
MPA	Municipal Planning Area
NPDES	National Pollutant Discharge Elimination System
SRP	Salt River Project
SRPMIC	Salt River Pima Maricopa Indian Community

1.0 Introduction

The Salt River Pima-Maricopa Indian Community (SRP-MIC) has identified a number of concerns relating to the proposed Water Reclamation Facility (WRF) for the planned development, entitled The Preserve at Goldfield Ranch (Applicant). SRP-MIC has contracted with HDR Engineering, Inc. (HDR), to provide professional engineering and hydrogeological consulting services to provide third-party review of its concerns. HDR subcontracted with HydroSystems, Inc. (HSI), for the hydrogeologic services.

1.1 Purpose

The purpose of this report is to:

- Provide third-party technical review of the Applicant's adherence to the MAG 208 *Water Quality Management Plan* amendment criteria
- Evaluate the Applicant's response to concerns raised by the SRP-MIC
- Identify and document any additional technical concerns with regard to the Applicant's MAG 208 amendment request
- Summarize findings and draw conclusions regarding Applicant's compliance with the MAG 208 *Water Quality Management Plan* amendment criteria

1.2 Background

1.2.1 Section 208 of the Clean Water Act (CWA)

The MAG 208 process is a result of recommendations in Section 208 of the CWA. The CWA, which was passed in 1972, has been one of the most important pieces of environmental legislation for the protection of water quality in nation's rivers, lakes, estuaries, and wetlands. Protecting the quality of the nation's surface water involves regulating wastewater treatment and discharges and appropriate regional planning to wastewater treatment. Section 208 of the CWA encourages the development and implementation of areawide waste treatment management plans.

Section 208 stipulates that the regional waste water treatment management plans identify the anticipated municipal and industrial waste treatment needs in the area for a 20-year period and the treatment works necessary to meet those needs. The plan is to include processes to control the disposal of pollutants to protect ground and surface water quality. It authorizes a regulatory program to:

- Implement waste treatment management requirements of section 201(c)
- Regulate location, modification, and construction of any facilities which may result in any discharge in such area
- Ensure that industrial or commercial waste discharged into any treatment works meets applicable pretreatment requirements

1.3 MAG 208 Water Quality Management Plan

1.3.1 Structure and Purpose

The MAG 208 Water Quality Management Plan was first adopted in 1979. Now in effect is the second revision, adopted in 2002. The Plan was developed in response to the CWA Section 208 requirement that each state operate a continuing areawide waste treatment management planning process. For Maricopa County, the Maricopa Association of Governments (MAG) has been designated as the areawide water quality management planning agency. The planning process is a mechanism to identify specific areawide waste treatment and water quality management.

The Plan has two major elements: the Point Source Plan and the Non-Point Source Plan. The Point Source Plan is intended to “identify the preferred wastewater collection and treatment, and effluent reuse or disposal systems for the study area.” The Non-Point Source Plan was implemented in an effort to control all pollutant discharges that do not originate from a specific single location.

The MAG 208 planning process incorporates the efforts of several agencies. The United States Environmental Protection Agency (USEPA) is charged with

overseeing the program to ensure the requirements and goals of Section 208 of the CWA. The Arizona Department of Environmental Quality (ADEQ) reviews and enforces the water quality standards. At the local level, cities, towns and tribal communities are responsible for planning and providing necessary collection and treatment facilities. The Maricopa County Environmental Services Department (MCESD) contributes to the process by issuing approvals to construct and approvals to operate wastewater treatment facilities located in Maricopa County.

The current *Water Quality Management Plan* acknowledges Arizona's Growing Smarter legislation as foundational for integrated planning, in concert with the MAG 208 process.

1.4 Growing Smarter Legislation

Recent legislation in Arizona has established roles for local and state government in planning and managing growth of urban areas. The Growing Smarter Act of 1998 (HB 2361), the Growing Smarter Plus Act (Senate Bill 1001), and the Growing Smarter Oversight Council Bill (HB 2601) affect how MPA (MPA) extend infrastructure to new development.

The recent bills amend existing planning and zoning legislation for Arizona. In general, the Growing Smarter Act requires municipalities and counties to adopt 10-year general plans to guide future development. The Arizona State Land Department is also required to create plans to coordinate with municipal and county plans and consider open space planning. Any general plan updates must be adopted by a planning commission, council, and a majority vote of registered voters. In addition a water resource element must be included in the plan to consider the physical and legal availability of water supplies for the projected demand over the planning horizon.

The Growing Smarter Legislation has been critical in facilitating planning coordination among the municipalities, counties, and State Land Department. The water resource element attempts to address planning needs to meet the

growing population's water demands.

1.5 Amendment Approval Process

An approval process was developed to avoid revising the MAG 208 Plan each time a new plant was proposed and accepted. This process applies to any plant not already identified in the Point Source Plan of the MAG 208 Plan. The Point Source Plan was created to compile the preferred wastewater collection and treatment system for Maricopa County through the year 2020.

Plants are differentiated by size and permit requirements. A Small Plant is defined as having an ultimate capacity less than 2.0 million gallons per day (MGD) and not requiring National Pollutant Discharge Elimination System (NPDES) permit or, in Arizona's case, the Arizona Pollutant Discharge Elimination System (AZPDES) permit.

The Small Plant approval process is intended to avoid "an uncontrolled proliferation of Small Plants that could cause problems in the future." The approval process is described in Section 4.5 of the MAG 208 *Water Quality Management Plan*. The approval processes are similar for Small Plants proposed within or outside an MPA, with variation in the evaluation criteria. The MAG 208 approval process for a Small Plant outside an MPA is described below:

- An engineering report is submitted by the applicant to Maricopa County and any Cities (including tribal communities) whose Municipal Small Plant Planning Areas are within 3 miles of the proposed plant's service area. The information contained in the report will be evaluated based on the criteria in the MAG 208 Small Plant Approval Process, as summarized in Tables 1 and 2 of this report.
- The involved Cities send a letter of their recommendations to Maricopa County.

- Maricopa County incorporates the Cities' concerns in a letter and summary of the proposal to MAG with its determination regarding the proposal's acceptability.
- The MAG Water Quality Advisory Committee evaluates the proposal for overall conformance to the MAG 208 Plan to ensure the Small Plant Process is followed and to ensure all regional impacts are addressed. Its recommendations are presented to the MAG Management Committee. The MAG Management Committee reviews the proposal and presents a recommendation to the Regional Council. Once the Regional Council approves the amendment, a letter of 208 compliance is submitted to Arizona Department of Environmental Quality (ADEQ).
- ADEQ reviews the MAG submittal and sends a letter to MCESD indicating 208 Plan compliance.
- After the receipt of a 208 Plan compliance approval letter from ADEQ, MCESD reviews the plans and specifications based on Arizona Department of Health Services Engineering Bulletin #11. MCESD issues a permit to construct when its requirements for approval have been met.

Of particular importance and interest to SRP-MIC is that the MAG 208 *Water Quality Management Plan* states, "projects with major problems to the City or Town which could not be resolved, would not receive compliance from ADEQ."

1.6 Recent Small Plant Amendment Approvals

1.6.1 The Estates at Lakeside

The Estates at Lakeside is located in the City of Peoria's MPA, and is now owned and operated by the City of Peoria. This Small Plant was approved by the MAG Regional Council in March 2006. The Estates at Lakeside is an activated sludge wastewater treatment plant with an ultimate capacity of 120,000 gpd (ESCA, 2006). This plant will be constructed in two phases to serve the Estates at Lakeside subdivision; each phase has a 60,000 gpd design flow. The treated

effluent will be disposed of by deep-well injection into the aquifer. Hydrogeologic analysis was provided to Arizona Department of Water Resources (ADWR) and considerations presented in the Aquifer Protection Permit (APP) application are also included in the submittal. The plant is near the Agua Fria River below Waddell Dam (forming Lake Pleasant), which is an ephemeral stream when releases from Waddell Dam allow it to flow. This reach of the Agua Fria River is designated by ADEQ as appropriate for partial body contact, but not as a domestic water source.

1.6.2 The Ruth Fisher School

The Ruth Fisher School is located in Tonopah but outside of any MPA in Maricopa County and has a Small Plant for sewage treatment. This Small Plant originally produced 15,000 gpd and Class B reclaimed water. The application for expansion to 42,000 gpd was approved by the MAG Regional Council in January 2005 (Fluid Solutions 2004). The expansion included upgrading the treatment technology for production of Class A+ quality reclaimed water. The water will be reused for irrigation and landscaping at the school with any remaining effluent recharged into the aquifer using infiltration chambers. A design concept report for the proposed treatment plant is included in the submittal to MAG. There is very little slope to the land in the area, and the plant is several miles from the closest surface water, the Gila River. Additionally, the plant was not within 3 miles of any other City's MPA.

HDR compared the previous amendment approvals of these two recent Small Plants to the Goldfield Preserve application. In general, additional information was submitted in support of the previous applications including design reports, APP applications, and more specific and direct responses to the technical evaluation criteria set forth by MAG. Although, not required by the Small Plant Process, this additional information may have been helpful in answering specific questions about the proposed reclamation facility.

2.0 Compliance of Applicant's Request to MAG 208 Amendment Requirements

To facilitate its review, HDR developed tables that describe the MAG 208 amendment general and specific criteria, the Applicant's response to the criteria, and HDR's assessment of the Applicant's compliance with the criteria. Table 1 addresses the general criteria. Table 2 addresses the specific criteria.

Table 1: General Assessment for Compliance of the Goldfield Water Reclamation Application to MAG 208 Criteria

MAG 208 Criteria		Addressed by Applicant	HDR Assessment
1	Have the review and comment of any municipality whose Small Plant Planning Area is within three miles of the proposed plant location or service area.	Yes	The Applicant has received comment from municipalities with MPA within 3 miles of the proposed site. However, many of the comments and questions are still unresolved.
2	Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants.	No	The application does not address the impact to other existing wastewater treatment plants.
3	Be consistent with State and County regulations and other requirements.	Yes	The application includes a number of appropriate permits that will be required to operate the WRF.
4	Be otherwise consistent with the MAG 208 Plan.	No	The Goldfield WRF is not consistent with the MAG 208 Plan since it does not take into account private lands that could be served by the plant. It also does not take into account the unique features of the location and potential impacts to the Verde River.
5	Be evaluated and approved, or modified by MCESD.	Yes	MCESD has commented "no conflict."

Table 2: Specific Assessment of Compliance with MAG 208 Small Plant Approval Amendment

MAG 208 Criteria		Addressed by Applicant	HDR Assessment
Technical Criteria			
1	Why is a small plant desired?		Yes A Small Plant is more desirable in this instance, but limiting the Small Plant service area is inconsistent with the intent of the MAG 208 process.
	a	Depth to groundwater less than ____ ft.	No Not specifically addressed in the body of the application. However, the hydrogeology report includes a figure that identifies water levels for wells within the project area.
	b	Soil Limitations prevent use of septic tanks	No Not addressed; however, soil limitations do not appear to prevent the use of septic tanks but from a water quality standpoint a Small Plant is more desirable.
	c	Potential for reuse or water conservation	Yes Criteria have been adequately addressed.
	d	Lot size one acre or less	Yes Some lot sizes are greater than 1 acre.
	e	Area not planned for regional service for ____ years	Yes Application states that the WRF substitutes for a WWTP. Limited discussion of service area of WWTP included in 1995 area plan.
	f	Density of projected population	Yes Does not take into account the potential growth for the remaining private land.
	g	Will serve industrial or commercial area	No WRF receives domestic and commercial wastewater.
2	What is the anticipated quality of the wastewater?		Yes Does not address the quality of wastewater from the commercial uses.
	a	Domestic	Yes Adequately addressed for service area.
	b	Commercial and/or Industrial	No Not addressed.
	c	If commercial and/or industrial wastes are anticipated, what provisions are being taken to ensure no toxic substances will be discharged?	No Not addressed.

Table 2: Specific Assessment of Compliance with MAG 208 Small Plant Approval Amendment (Continued)

MAG 208 Criteria		Addressed by Applicant	HDR Assessment
3	How and why was a small plant design and capacity selected?	Yes	Discussion of the design and capacity is addressed but does not incorporate all private lands.
	a What criteria were used?	Yes	Adequately addressed.
	b What alternatives were considered?	Yes	Adequately addressed.
	c What are benefits, problems of alternatives?	Yes	Adequately addressed.
	d Will there be problems meeting State or County regulations?	Yes	Does not consider possibility of AZPDES permit or surface quality requirements.
	e What sludge management options were considered?	Yes	Limited options were discussed. Who will be hauling the sludge? What plant will be accepting the sludge?
Planning Criteria			
1	Is proposed plan compatible with County adopted master plans, guidelines, etc., for the area?	Yes	The application addresses this by considering the 1995 adopted MC plan. However, the WRF does not include adjacent private property for service.
	a What plans apply?	Yes	Adequately addressed.
	b What guidelines or policies apply?	Yes	Misses the intent of the CWA Section 208, nonproliferation of small wastewater plants and regional planning.
2	Can the proposed plant be expanded to serve growing population?	Yes	Applicant addresses this issue by saying "limited." There is sufficient land to increase the capacity. Use of membrane bioreactor could increase the capacity with the same land area.
	a What population is projected for the service area?	Yes	Applicant addresses this issue but does not take into account the larger potential service area of the private lands. MC plan indicates population could range between 3,500 and 7,000 at build-out (Goldfield Area Plan, 2007).
	b What certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area?	Yes	Not adequately addressed. See 2a.
3	Will proposed plant adversely impact existing or approved nearby land uses?	No	Not addressed sufficiently.
	a What are land uses within ____ miles?	Yes	Limited discussion.
	b What is zoning for surrounding area?	Yes	Adequately addressed.
	c What are reactions of nearby landowners to proposed facility?	Yes	Not adequately addressed.

Table 2: Specific Assessment of Compliance with MAG 208 Small Plant Approval Amendment (Continued)

MAG 208 Criteria			Addressed by Applicant	HDR Assessment
4	Will there be a net water saving from effluent reuse?		Yes	Adequately addressed.
	a	How will effluent be disposed of?	Yes	There is not sufficient information to state that the injection wells will not affect the Verde River and the nearby wells.
	b	What is the estimated water saving?	Yes	Adequately addressed.
5	Do nearby existing or proposed land uses indicate a need for larger capacity sewage plant than that proposed?		Yes	Not adequately addressed. See 2a.
	a	Should nearby areas be sewerred or otherwise join the proposed plant for water quality or economic reasons?	Yes	Not adequately addressed. Plan should include for plant expansion and service connection for the entire county island at build-out.
	b	Do these areas wish to join the proposed plant?	No	Have surrounding homeowners been made aware of the possiblity of connecting to a plant? What public relations activities have been conducted to inform property owners of the plant?
Development Criteria				
1	Who will fund the construction?		Yes	Adequately addressed.
2	Who will fund operation and maintenance costs?		Yes	How will a CID afford the O&M on this complex system?
3	Is there adequate financial security to assure continual and proper operation and maintenance?		No	This is addressed as financial security of Goldfield Preserve Development LLC but not of the CID that will be ultimately maintaing the system.
4	Who will operate and maintain the plant and system?		Yes	References provided for other WRFs, but operator does not show experience with injection wells. Operator resides 3 hrs from the proposed site and would be required to inspect the facility daily.
5	What are the anticipated capital and operation and maintenance costs?		Yes	Not appropriately sized for area needs.Lack of appropriate O&M costs. What will be the real costs?

3.0 SRP-MIC Concerns Regarding Applicant's Amendment Request

3.1 Clay Layer

The hydrogeology at the Goldfield site consists of the Alluvial Floodplain Aquifer, which overlays the Pemberton Ranch Formation and the Needle Rock Formation (regional aquifer).

The Pemberton Ranch Formation composed predominantly of siltstone, claystone and fine-grained sandstone also contains minor coarse-grained sandstone and conglomerate is considered an aquiclude/aquitard confining groundwater in the predominantly subjacent Needle Rock Formation...The extension and thickness of the Pemberton Ranch Formation is important for determining the possible hydraulic connection of the Alluvial Floodplain Aquifer and the Needle Rock Formation. If the fine grained unit is absent in the mountain front edges of the basin, as is frequent in other southern Arizona basins, direct recharge from runoff can take place directly to the regional aquifer (HSI 2008, p.5).

Three wells located on the northwest corner of Parcel A of the Preserve at Goldfield Ranch intersect 250 feet of silty clay at a 400-foot depth. The figures in the Applicant's Hydrological Study (Southwest Ground-water Consultants 2006) estimate the Pemberton Ranch Formation across the entire property. The Applicant assumes that the aquifer to receive the reclaimed injected water is confined and will not impact the nearby Verde River.

However, HSI review of numerous drillers' logs from The Preserve at Goldfield Ranch and adjacent areas concludes there is "insufficient good-quality information to map with sufficient reliability the extent of the Pemberton Ranch Formation" (HSI 2008) as the Applicant has done. In addition, analysis of the 72-hour aquifer test of The Preserve at Goldfield Ranch shows a response more typical of a leaky confined aquifer or proximity of a recharge boundary, which is contrast with the Applicant's assumption. Others such as Salt River Project (SRP) believe there is hydrologic connectivity between the two aquifers at the proposed site (SRP letter, April 8, 2008). Because of these conclusions,

there is sufficient evidence to require additional investigation. See Appendix A – Hydrologic Data Evaluation for recommended subsurface investigation.

3.2 Treatment Levels

The developer claims the treatment technology proposed for the plant will provide treatment to below ADEQ standards for four constituents. Treating to a water quality level that is lower than these ADEQ standards is what is expected. Of material importance is whether the proposed technology can be shown to produce an effluent quality that meets the water quality criteria for the intended reuse or discharge. For the purpose of beneficial reuse, the developer has considered four variations of activated sludge processes to produce Arizona Class A+ reclaimed water. However, it cannot be ascertained from the Applicant's text or conceptual site plan whether a denitrification step is to be included. The "+" for Arizona Class A+ and Class B+ reclaimed water is in reference to water that contains less than 10mg/L nitrate as nitrogen. This notwithstanding, it is common practice to include an anoxic zone or other treatment process in association with the proposed treatment processes to achieve the water quality standards of Class A+ reclaimed water.

The water quality standards for Class A+ water are as follows (AAC, 2003):

1. The turbidity of Class A+ reclaimed water at a point in the wastewater treatment process after filtration and immediately before disinfection complies with the following:
 - a. The 24-hour average turbidity of filtered effluent is two NTUs or less, and
 - b. The turbidity of filtered effluent does not exceed five NTUs at any time.
2. Class A+ reclaimed water meets the following criteria after disinfection treatment and before discharge to a reclaimed water distribution system:
 - a. There are no detectable fecal coliform organisms in four of the last seven daily reclaimed water samples taken, and
 - b. The single sample maximum concentration of fecal coliform organisms in a reclaimed water sample is less than 23 / 100 ml.

- c. If alternative treatment processes or alternative turbidity criteria are used, or reclaimed water is blended with other water to produce Class A+ reclaimed water under subsection (C), there are no detectable enteric virus in four of the last seven monthly reclaimed water samples taken.
3. The 5-sample geometric mean concentration of total nitrogen in a reclaimed water sample is less than 10 mg / L.

HDR is confident the proposed treatment technologies, with the addition of nitrogen removal technology, are capable of producing Class A+ reclaimed water. If the Applicant intends to produce Class A+ reclaimed water quality, ADEQ will require the addition of nitrogen removal technology for the APP. The following is a summary of the treatment processes considered by the Applicant:

3.2.1 Sequencing Batch Reactors

The batch process means all biological treatment occurs in a single tank. Sequencing batch reactors are two or more reactor tanks operated in parallel or an equalization tank and a reactor tank. This process allows for several types of systems: continuous influent/time based, noncontinuous influent/time based, volume based, intermittent cycle system using jet aeration, and various other modifications. Sequencing batch reactor plants are typically manufactured to handle flow rates of 0.01 to 0.2 MGD, and can be installed in parallel modules. This type of process has a large operational flexibility, including the ability to control substrate tension that allows for optimization of treatment efficiency, control over nitrogen removal, filamentous organisms, and overall stability. Other advantages include few operation and maintenance problems, smaller footprints than other types of plant, capability of being manned part-time from a remote location, no production of bulk sludge, and the system allowance for automatic and positive control of mixed liquor suspended solids concentration and solids retention time through sludge wasting. Disadvantages include difficulty in adjusting cycle times for smaller communities, possible requirement for

postequalization if more treatment is needed, need for frequent disposal, and high energy consumption (EPA 2000).

3.2.2 Oxidation Ditches

An oxidation ditch is typically a channel configuration within a circular, oval, or horseshoe-shaped basin. Inside the ditch the wastewater is aerated with surface or submersible aerators. Aerators must provide sufficient oxygen and mixing to ensure contact between organisms and their food supply. Oxidation ditches are used for flow rates between 0.01 and 0.5 MGD. This type of plant handles typical domestic waste well, uses a moderate amount of energy, has inexpensive operation and maintenance costs, has low operational needs, can operate flexibly operating with or without a clarifier, consistently provides high quality effluent (TSS, BOD, ammonia), and has a low sludge yield. However, these plants can be noisy and can produce odors when not operating properly, are unable to treat highly toxic wastes, require a large footprint, and exhibit limited flexibility responding to changing effluent regulations. Nitrogen removal can be performed within the ditch by constructing a separate anoxic zone, but doing so reduces treatment capacity. It is best to perform nitrogen removal through a separate reactor (EPA 2000).

3.2.3 Extended Aeration Plants

The extended aeration process is a biological treatment for the removal of biodegradable organic waste. Oxygen is required to sustain the aerobic biological process; this can be achieved through mechanical or diffused aeration, which will also provide the mixing action to keep microbial organisms in contact with dissolved organics. For this process to be continually effective, essential nutrients must be available to promote biological growth and the pH must be controlled. These plants are typically used for flow rates 0.1 below MGD. They are easy to operate, easy to install, odor free, have a low sludge yield, and are often better at handling organic loading and flow fluctuations. Extended aeration plants do not perform denitrification or phosphorus removal without additional processes, have

limited flexibility to adapt to changing effluent requirements, require more energy, and require a large footprint (EPA 2000).

3.2.4 Complete Mix

The Complete mix activated sludge process is an application in a continuous-flow stirred-tank reactor. The aeration tank has several points where settled wastewater and recycled activated sludge are introduced. The assumption in the process is that the mixed liquor suspended solids concentration and oxygen demand are uniform throughout the entire tank. This type of process dilutes shock loads that may come into the system from industrial wastes. The complete mix system is simple to operate. The system disadvantage is that there are low organic substrate concentrations encourage growth of filamentous bacteria, causing sludge bulking problems. A separate reactor would be needed to provide nitrogen reduction (Metcalf & Eddy 2003).

As indicated in Section 4, meeting Class A+ reclaimed water quality standards may not be sufficient for this plant. If the injected reclaimed water mixes with the subflow of the Verde River, ADEQ will likely require the Applicant to ensure the surface water quality standards for the respective reach of the Verde River are not exceeded by this practice. There is insufficient evidence or technical information about the hydrogeology and geochemistry of the area to ascertain whether water meeting Class A+ reclaimed water standards would be sufficient to also meet surface water quality standards at the point where injected water would adversely affect the Verde River water quality.

3.3 Regional Planning

Regional planning is the purpose of the MAG 208 process. The MAG 208 Small Plant approval process is specifically designed to eliminate a proliferation of small treatment plants. The Goldfield WRF is planned to serve parcels A and B of the Goldfield subdivision, including a small commercial area. There is intent to develop parcels C and D on the southeast side of Highway 87, which would be service by septic systems. A

nearby developer has also submitted to Maricopa County a notification of intent to develop a subdivision (known as “Grayhawk”) of one to two units per acre, necessitating a sewer system (Grayhawk Development, 2007). There are also many developed lots in the area currently using septic systems.

To best use the MAG 208 planning process, the following issues should be reconsidered: the feasibility of accommodating the entire Goldfield area, the private lots, and the Grayhawk development. This is particularly important given that The Preserve at Goldfield Ranch is completely enveloped by the Tonto National Forest on three sides, and the FMYN on the west side. The proposed plant represents the best opportunity for maintaining and protecting water quality in the entire area.

From a consumer demand standpoint, it will be attractive for commercial development to occur along Highway 87, because this is the last remaining substantial stretch of land that could be used for commercial services before entering National Forest land, or on re-entry to the urban core. Consumer demand for commercial services may significantly influence land use associated with parcels C and D, and, therefore, the character and flow of wastewater to the proposed treatment plant. While the intention of the Applicant is that parcels C and D will be developed for single-family home sites, consumer demand can be accommodated through pursuit and acquisition of Special Use Permits from Maricopa County that would allow for a change of zoning to a commercial category. This process would need to be pursued outside of the MAG 208 review process.

3.4 Small Plant Operator and Plant Failures

The *Water Quality Management Plan* for The Preserve at Goldfield Ranch indicates that the wastewater treatment facility will be a 0.40-MGD reclamation facility to treat to Class A+ reclaimed water standards for groundwater recharge and reuse. Class A+ reclaimed water quality is appropriate for reuse, but does not guarantee compliance with aquifer water quality standards when injected into the ground. Once constructed by the Applicant, the reclamation facility will be owned and maintained by the Goldfield Preserve Water Improvement District, a County Improvement District (CID). The plant

and sewage collection system are to be operated by A Quality Water Co. based in Williams, Arizona, nearly 3 hours from the Applicant's site.

A Quality Water Company operates small water and wastewater utilities in northern Arizona. The company does not have experience operating Aquifer Storage and Recovery wells. Their operators are certified and licensed in Arizona for Grades 2, 3 and 4 (CMX 2008). There are four grades of classification (1–4) for wastewater treatment plants, collection systems, and effluent distribution systems. The systems are classified according to the type, treatment process, and population served. The proposed 0.40-MGD treatment system at Goldfield Preserve will serve 3,283 people and include tertiary treatment, which, according to Maricopa County standards (MCEHC, 2007), classifies the system as Grade 3.

Because of the classification of the wastewater treatment facility, an on-site operator certified at Grade 2 or higher is required. If overseen by a remote operator, a Grade 3 or higher is required. If the site is overseen by a remote operator, the Grade 3 certified operator is required to reside within 3 hours travel time and must inspect the facility daily. The wastewater collection and reclaimed water distribution systems are classified based on the service area population, and will be operated by a Grade 2 or higher certified operator (MCEHC 2007). Because of these restrictions, the owner should identify an operator who resides closer to the development.

A Corporate Status Inquiry of A Quality Water Company LLC, indicates that the operator is in good standing with the Arizona Corporation Commission (ACC May 8, 2008). A search of the EPA's Safe Drinking Water Information System revealed minor monitoring violations for Grand Canyon Inn, Anazasi Water Co., and American Ranch DWID, which were listed as operated by A Quality Water Co. No health based violations were identified (SDWIS May 9, 2008). Monitoring and reporting violations are not uncommon with any system and do not represent a significant negative bias toward any operator.

3.5 Injection Wells

The storage of reclaimed water in the aquifer is currently practiced by municipalities in the Phoenix and Tucson areas. For large volumes, recharge is accomplished by water-spreading at direct surface recharge facilities such as the GRUSP and NAUSP projects in Phoenix and the Sweetwater facility in Tucson. The use of injection wells for reclaimed water recharge is more limited, however, because of the high cost of construction for small recharge volume, high maintenance costs, additional monitoring, and contingency requirements as well as water quality restrictions (HSI 2008).

In some cases, however, well injection is the preferred alternative when there is limited available land and geologic conditions are appropriate. Underground storage and recovery of reclaimed water is used by several municipalities in the Phoenix area.

The Fountain Hills Sanitation District Underground Storage Facility consists of four Aquifer Storage Recovery (ASR) wells which inject reclaimed water in the Confined Regional Aquifer. Each well is designed for an injection and recovery rate of 400 gpm. The recharge and recovery operations are fully automated. The approximate cost of each well, fully equipped and instrumented, is approximately \$1 million. The facility also includes five monitor wells for monitoring of water quality and hydraulic impacts (HSI, 2008, p. 10).

Over time, the recharge-specific capacity of the well diminishes because of the clogging from particulates, biological growth, and geochemical reactions. The wells require rehabilitation every 3–5 years, costing nearly \$100,000 per well.

3.6 Plant Expansion

While it is understood that the existing plans provided by the Applicant do not need to be of sufficient detail to make a determination of expandability, the land area shown on Figure 5 of the Applicant's submittal appears to be large enough to accommodate a facility with a greater footprint. The existing conceptualized layout does not lend itself well to expansion, so a reconfiguring of the process facilities would be desirable for cost-

effective expansion. The conceptual site plan shows disinfection using ultraviolet light following clarification, but before filtration. HDR recommends that disinfection occur following filtration. There are other technologies, such as membrane bioreactors, that would allow for substantial increases in capacity on the same plant footprint. It appears there is sufficient land area to accommodate treatment of wastewater flows from the areas of The Preserve and Goldfield Ranch that are not currently planned to be served by the plant.

3.7 Precedence for Small Plants in Similar Settings

There have been prior Small Plants approved both inside and outside of MPAs in Maricopa County; however, the proposed Goldfield Small Plant is unique in several ways.

First, it is planned in an area for which known existing and additional development will occur and for which associated wastewater flows are not intended to be treated at the proposed plant. At a minimum, wastewater flows from the planned Grayhawk development and the other private lots within The Preserve and Goldfield Ranch should be considered for treatment by the proposed plant. Failing to account for additional development with this plant will lead to additional Small Plants or more septic systems. This is not consistent with the goals of the MAG 208 process.

Second, it will receive wastewater from residential and commercial properties, likely including restaurants, hotels, and other service industries. Further study and land use planning regarding commercial facilities should be conducted to understand the extent to which associated wastewater flows may influence the selected treatment technology and subsequent operations of the plant.

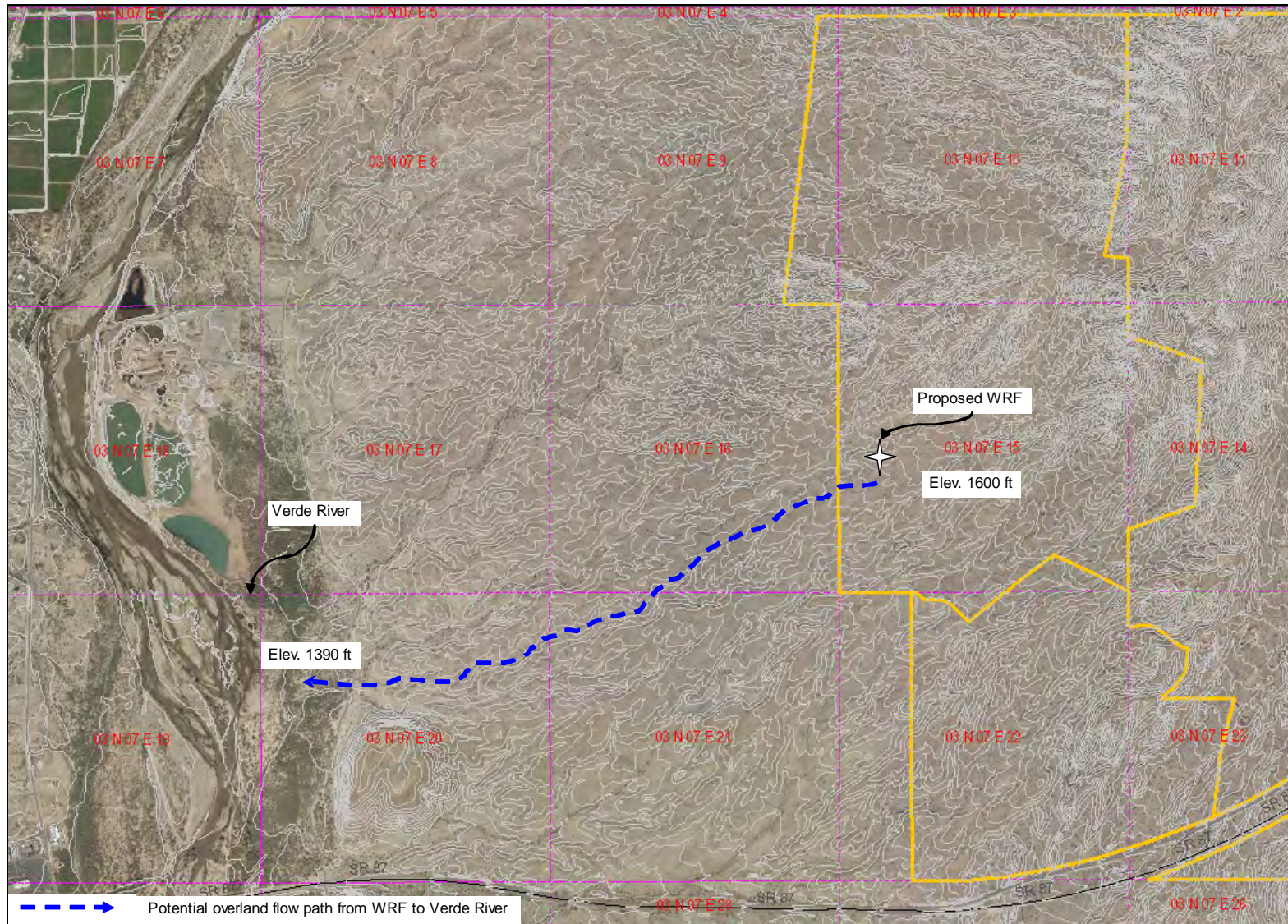
Third, it is located in an area of highly variable land relief near a high-value perennial stream. Plant or conveyance facility failures have a greater potential for rapid flow of raw sewage by gravity to a valuable water body: the Verde River. Overland flow routing calculations estimate that an unimpeded plant failure at full capacity (0.40 MGD) could

result in raw sewage reaching the Verde River riverbed within 6 to 18 hours.

Additionally, planned discharge of unusable treated wastewater is to the aquifer below the facility, which is near the Verde River (within 2.5 miles). Based on review of hydrogeologic information, direct connection of the aquifer to the subflow of the Verde River is not conclusive. Therefore, future review of the reclamation facility plans by ADEQ may necessitate the inclusion of surface water quality standards in an APP.

Fourth, it is enveloped by sensitive habitat, a Native American community, and the Tonto National Forest, and will likely never be included in an MPA within the county. In comparison to the Small Plants identified in Section 3, the responsibility for this plant will initially and likely always be a CID. Based on the factors identified above, the plant and associated sewage collection facilities may require sophisticated technology, operation, and attentive control, and should be sized to manage the wastewater from the entire area of private and developable land. Additionally, operation, maintenance, and replacement costs will be significantly higher per service connection than the typical wastewater system, which may be difficult for a CID to continuously fund.

Figure 1: Potential overland flow path from WRF to Verde River



4.0 Identification of Additional Concerns

In the process of its review, HDR identified additional issues that may be of concern to SRP-MIC. This section describes these issues.

4.1 Discharge to Subflow of the Verde River

Arizona Administrative Code (AAC) R18-11-405 B states, “A discharge shall not cause or contribute to a violation of a water quality standard established for a navigable water of the state.” Surface water quality standards are typically much more stringent than those for groundwater, which means that additional treatment technology beyond that currently proposed by the Applicant may be required for reliance on injection and recovery for management of the reclaimed water.

There is uncertainty regarding whether there is a confining layer that prevents or slows movement of groundwater from underneath Goldfield Ranch to the Verde River. If it is determined through additional hydrogeologic studies that the injection of Class A+ reclaimed water from the Applicant’s proposed water reclamation facility would join and mix with the subflow of the Verde River, ADEQ may consider the injection of the water into the subflow as a point source “discharge” and require an AZPDES permit, or for ADEQ to require that Surface Water Quality Standards for the respective reach of the Verde River be met as part of the APP. In either case, the reclaimed water would need to meet the discharge water quality criteria for the respective reach of the Verde River.

The surface water quality standards specific to the Verde River between Bartlett Dam and the Salt/Verde confluence are listed in the AAC R18-11-123. The designated uses of this reach of the river are wildlife (aquatic and wildlife warm water), agricultural (irrigation and livestock watering) and human (full body contact, fish consumption and domestic water supply). Because of the potential impact to human health, increasingly stringent water quality compliance is required. Any wastewater discharges adversely affecting the river must meet all of the water quality criteria or demonstrate that the river blended with the discharge would not exceed the criteria for any designated use. Appendix B is a listing of the water quality criteria by designated use.

From a water quantity and accounting standpoint, it may be difficult for the applicant to demonstrate that pumped groundwater (as is depicted in Figure 5 of the Applicant's request) can be accounted for as reclaimed water if the injected water moves quickly toward the river and flows out of the area of hydrogeologic impact.

4.2 Remote Facilities in Proximity to Sensitive Habitat and Verde River

Based on a review of the topography of The Preserve at Goldfield Ranch and of the supporting information provided by the Applicant, a number of sewage lift stations will be required to convey collected wastewater to the treatment plant. While it is intended that redundant power will be provided at the water reclamation facility, there is no mention of redundant power supply to the lift stations, which will serve as intermediate collection points of sewage throughout the planned community. Pump failures in these locations would result in raw sewage overflows into the community and washes that lead to the Verde River. It is possible to construct wastewater storage facilities to enable longer response times to pump failures, but odor and corrosion control would become a significant maintenance issue.

5.0 Evaluation of Concerns

It is HDR's assessment that wastewater collection and treatment for the entire area (The Preserve and Goldfield Ranch) are in the best interest of Maricopa County and all users and beneficiaries of the Verde River. The proposed plant should not be considered similar to other approved Small Plants serving relatively flat areas away from perennial streams. The potential for surface water impairment with raw sewage is much higher than with other plants because of the steep topography and proximity of the plant to the Verde River. HDR believes the proposed plan for on-site treatment (septic systems) for parcels C and D is not in the best interest of the protection of regional water quality. Available hydrogeologic information is inconclusive regarding an impeding layer that would prevent injected reclaimed water from reaching the subflow of the Verde River. If the injected reclaimed water reached the subflow of the Verde River, it would need to meet surface water quality standards for the respective reach of the river. Finally, the

proposed collection system, treatment plant, reclaimed water distribution system, and management of unusable reclaimed water by injection will be expensive to operate, maintain, repair, and replace for a CID that will rely heavily on approximately 1,000 single-family home sites.

The MAG 208 *Water Quality Management Plan* is the County's first defense against degradation of water quality. It is entirely appropriate and expected that MAG would apply increased scrutiny to a proposed plant that will be owned and operated by a CID, is very close to a valuable perennial stream, and for which there is limited ability to cost-effectively mitigate service failures to prevent raw sewage from entering the river. At a minimum, according to the intent of the MAG 208 planning process, the plant should be planned and sized to treat sewage from the entire area, and further assessment regarding the categorization of the plant (based on the potential for Verde River water quality impacts) should be made before MAG approves the plant for amendment into the *Water Quality Management Plan*. Regional wastewater collection and treatment best protect water quality, and more consideration needs to be given to the risks posed by the location of the proposed plant and the nature of the wastewater flow and quality characteristics it may be processing on startup or in the future.

6.0 Conclusions

While the Applicant has successfully addressed some of the issues pertinent to the MAG 208 process, there are key components in the application that have not been adequately addressed by the Applicant. Consequently, the application is inconsistent with the MAG 208 *Water Quality Management Plan*. HDR identified these inadequacies:

- Plant location and local features
- Service area
- On-site treatment
- Potential surface water quality impacts from injection
- Owner/operator financial capability

6.1 Plant Location and Local Features

The unique features of the proposed plant's location relative to the Verde River, the surrounding topography, and the increased risk it poses to surface water quality standards that have been established for the protection of wildlife and humans have not been adequately considered. While the proposed plant would have redundant power supply and on-site retention, a service failure of it or of the associated sewage lift stations throughout the community (which are not proposed to have redundant power or retention) would result in a sewage overflow that could make its way to the Verde River. The proposed plant location is 2.5 miles from and 210 feet above the Verde River. At build out capacity, unimpeded wastewater overflows from the proposed plant could reach the river within 6 to 18 hours of plant failure.

6.2 Service Area

The intent of the MAG 208 review process, as set forth by Section 208 of the CWA, is to protect water quality through a regional planning process. The MAG 208 process has also incorporated Growing Smarter Legislation principles to strengthen the regional planning role of MAG for multiple benefits to current and future generations of inhabitants. The *Water Quality Management Plan* and related amendment process for Small Plants is intended to prevent the "uncontrolled proliferation of Small Plants that could cause problems in the future." The proposed plant will serve a limited land area within a larger and completely enveloped county island that contains existing development with septic systems and plans for additional development (including Grayhawk) that will require or could benefit from sewer collection and treatment. Not providing sewer service to the entire area would encourage the proliferation of Small Plants and septic systems in the area and, in turn, increase the risk to regional water quality.

6.3 On-Site Treatment

The proposed plant would receive wastewater from residential and commercial properties. The Applicant has indicated that at least one commercial facility, a resort/spa, may be included. Land along State Route 87 will be highly desirable for commercial facilities, because they are the last opportunity along the highway for such facilities for travelers leaving the urban core and the first opportunity for those entering the urban core, along the highway. The Applicant currently proposes that parcels C and D, which would be the most desirable for commercial facilities, would be served by septic systems (on-site treatment). The Applicant states an intention to develop parcels C and D with single-family home sites greater than an acre. However, Special Use Permits can be obtained from Maricopa County to respond to consumer demand, to effectively change the zoning and land use from residential to commercial. Such changes are not subject to review by the MAG 208 process. Regardless of what type of development occurs along State Route 87 on parcels C and D, use of septic systems as the on-site wastewater treatment technology is not a sound plan for protection of regional water quality. However, inclusion of significant commercial wastewater flows into the proposed plant would likely cause wide fluctuations in influent wastewater quality that may challenge the treatment capabilities of the proposed biologically active plant.

6.4 Potential Surface Water Quality Impacts from Injection

The proposed water reclamation facility at The Preserve at Goldfield Ranch initially appears to meet the criteria for a Small Plant (less than 2.0 MGD and not requiring a CWA discharge permit) that is outside of an MPA but within 3 miles of cities or towns that have Small Plant Planning Areas. In Arizona, the CWA discharge permit is called an AZPDES permit, and is used to maintain and avoid degradation of surface water quality.

Management of the unusable portion of the proposed plant's reclaimed water through injection wells would require compliance with surface water quality standards if it is demonstrated that the injected water mixes with the subflow of the Verde River. That is, production of Class A+ reclaimed water would not be sufficient, if this were the case. Review of hydrogeologic data from the Arizona Department of Water Resources (ADWR) and SRP indicates that the existence of a continuous clay layer that would

prevent or retard injected Class A+ reclaimed water from entering the Verde River is inconclusive. Further, the analysis of the 72-hour aquifer test conducted in 1985 at The Preserve at Goldfield Ranch reveals a response more typical of a leaky confined aquifer or proximity of a recharge boundary, not of a confined aquifer. In this circumstance, ADEQ will likely require compliance with surface water quality criteria for the reach of the Verde River into which the discharge would be received. At ADEQ's discretion, these criteria could become part of the Applicant's APP, or could be implemented through a separate AZPDES permit. In either case, the potential exists for surface water quality standards (derived from the CWA) to be included in a permit. Therefore, a determination needs to be made at this point in the planning process regarding what type of plant the Goldfield Water Reclamation Facility is before an application for amendment to the MAG 208 *Water Quality Management Plan* can be made.

6.5 Owner/Operator Financial Capability

While the Applicant has demonstrated financial capability to build the plant, the operation, maintenance, and repair and replacement of infrastructure and appurtenances for the collection system, plant, and the distribution (reuse) and management (injection and recovery) system of reclaimed water would be relatively expensive for a CID made up largely of residential customers (approximately 1,000 service connections) to continuously fund. For example, if an aquifer storage and recovery well (as is implied by Applicant's Figure 5) were to fail and need to be replaced, it would cost the CID approximately \$1 million to replace it. Based on historical performance of injection wells in the Maricopa County area, injection wells need to be rehabilitated every 3–5 years at an average cost of \$100,000. Also, the increased risk to surface water quality translates to an increased risk of violation and fines imposed on the CID. The Applicant has stated that the developer will supplement the financial security of the CID, but does not indicate for how long. Regardless, this issue does not appear to be adequately addressed by the Applicant, and there appears to be the potential for a significant financial burden to the future CID.

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Appendix A – Hydrologic Data Evaluation

The Preserve at Goldfield Ranch

Maricopa County

Hydrologic Data Evaluation

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1. Units of the Aquifer System of the Lower Verde River Valley Groundwater Basin

Background

The Preserve at Goldfield Ranch is planning to construct a water reclamation plant on their Parcel A, located on Township 3 North, Range 7 East of the Gila and Salt River Base and Meridian (Figure 1). The estimated capacity of the water reclamation facility (WRF) is 0.4 million gallons per day (MGD). The WRF will treat the effluent to A 1+ reclaimed water standard and will be stored underground using well injection. Three recharge wells will be used and will be spaced approximately one mile apart. One monitor well will be placed down gradient of the recharge wells.

The Preserve at Goldfield Ranch is going through a permitting process for the approval of its WRF under the MAG 208 Plan. The Salt River Pima Maricopa Indian Community (SRPMIC) has expressed concerns of potential impacts to groundwater resulting from the operation of the WRF, and the disposal of the reclaimed water to the underlying aquifer. Some of these concerns presented by the Preserve at Goldfield Ranch on their March 20, 2008 presentation to the MAG committee are:

- Groundwater level decline will affect the community's water resources
- Storm water and irrigation water may percolate into upper/middle aquifer and impact the Verde River.
- Clay layer does not confine upper and lower aquifer and thins out at the edges
- Is the Fountain Hills (Lower Verde River Valley) groundwater basin in hydraulic connection with the adjacent basins? (For example the East Salt River Basin).

Both groundwater quantity and quality issues are related to each of the four potential impacts listed above. The brief hydrogeologic analysis that follows will provide the essential elements to address these issues. More detailed information can be obtained from the references cited.

Geologic Summary

The area of the planned Preserve at Goldfield Ranch is located on the west side of the Lower Verde River Valley groundwater Basin (LVRVGB). Its surface expression is a valley that is elongate in a northwest – southeast direction with a length of approximately twenty eight miles. Its maximum width in a northeast – southwest

direction is twelve miles. The northwest – southeast orientation of this basin is the predominant alignment of the young Cenozoic age sedimentary basins of the Basin and Range physiographic province of Arizona and in general reflects the geologic history of this region (Damon, et al., 1984 and Dickinson, 1989).

The surrounding highlands that bound the Lower Verde River Valley groundwater basin are the Mazatzal Mountains to the east and north, the McDowell Mountains to the west and the Goldfield Mountains to the south. The principal drainages of this basin are the Verde River and its two main tributaries in this area which are Camp Creek and Sycamore Creek. The Verde River flows to the south traversing the basin along most of its central area. The Salt River flows to the west along the southern edge of the basin, and receives the water of the Verde River where the McDowell Mountains contact the Goldfield Mountains just upstream from Granite Reef.

The LVRVGB contains an alluvial aquifer system contained in sedimentary rock units deposited in relatively recent geologic past. These sediments correspond to the Gila Assemblage (Scarborough, 1989), and is the youngest of the four “stratotectonic assemblages” of the stratigraphic and tectonic framework of southern Arizona. It corresponds to Unit II of Eberly and Stanley (1978), and is the sedimentological response to the most recent tectonic event affecting Southern Arizona. This episode is the Basin and Range disturbance. These sediments are basin- fill units that have characteristics that suggest deposition totally within the confines of the present-day physiography. Skotnicki, et al (2003) identified four basin-fill units of Late Tertiary age in the LVRVGB. From oldest to youngest they are: The Needle Rock Formation (sandstone and conglomerate) which form the lower aquifer. This unit is overlain by and partially grades laterally into the Pemberlon Ranch Formation composed mostly of interbedded siltstone, claystone, fine-grained sandstone, and minor coarser-grained sandstone and conglomerate. It behaves as an aquiclude separating the lower and upper units of the LVRVGB aquifer system. Two units overlie the Pemberlon Ranch Formation. They are predominantly sandstones and conglomerates and form the younger basin-fill units of Late Tertiary age. Resting on these units are river deposits and piedmont deposits (Pleistocene-Holocene age). The younger basin-fill units and in places the river and

piedmont deposits compose the upper aquifer of this basin. The type of sedimentation sequence observed in the LVRVGB is common in many other young alluvial basins of Southern Arizona. This indicates similar erosion and deposition events related to common structural events.

In the East Salt River Valley basin the three units of the aquifer system are: Lower Alluvial Unit, Middle Alluvial Unit, and Upper Alluvial Unit. They are comparable to the Needle Rock Formation, the Pemberton Ranch Formation and the younger basin-fill respectively. Some wells in Scottsdale penetrate the red unit (Camels Head Formation) which underlies the Lower Alluvial Unit. This occurs near red unit outcrops in Camelback Mountain. In the LVRVGB where outcrops of the red unit have been mapped near its periphery (Skotnicki, 1995) this may also occur at depth. Near Camelback Mountain the red unit is a fractured bedrock aquifer and a limited volume of groundwater is pumped from this unit by Salt River Project wells.

The formation of the LVRVGB is the result of regional crustal extension which occurred from 35 Ma to 8 (+/-) Ma in the western USA (Rehrig, 1986). Two separate tectonic events have been identified. The early one, recognized as the Mid-Tertiary Orogeny (Oligocene to Middle Miocene) was more intense and of longer duration. The more recent is the Basin and Range disturbance (post 15 Ma). Many of the present day basins in southern Arizona started forming during the Mid-Tertiary Orogeny. The red unit was deposited during this episode and most of the consistent unidirectional tilting of this unit is characteristic of this event. Spencer and Reynolds (1986) divide the Basin and Range region of Arizona into regional tilt-block domains in which rocks of Middle Tertiary age dip predominantly in one direction. They interpret dip direction in each tilt-block domain is toward the breakaway of the detachment fault that underlies the block. This indicates that the normal (listric) faults in the upper plate of the detachment fault dip in the same direction than that of the master fault.

The Phoenix area including the LVRVGB is within the “Camelback Domain” where the dip of the northwest-southeast striking rocks of middle Tertiary age is to the southwest. This bedding attitude is observed in the red beds that crop out at Mount

McDowell in the southern part of the LVRVGB (Skotnicki, 1995). Menges and Pearthree (1989) indicate that northwest-trending basin orientation in southern Arizona predominantly reflect southwest-northeast extension associated with middle Tertiary deformation. Many of these basins were overprinted by the subsequent formation of Late Miocene basins formed during the Basin and Range disturbance (Nations et al, 1985; Keith et al 1985; Menges, 1983; and Scarborough, et al, 1983).

Early reconnaissance geologic mapping identified the LVRVGB as a basin separated from the Salt River basin to the west (Wilson et.al, 1957). The enclosing mountains are composed of sedimentary volcanic and metamorphic rocks of Precambrian (Early Proterozoic) age intruded by granites of Early and Middle Proterozoic age. Resting on these rocks and frequently in fault contact with them are sedimentary and volcanic rocks of Middle Tertiary age (red beds and predominantly felsic to intermediate composition volcanic rocks). The surface distribution of all the rock units - Precambrian, Middle Tertiary and Late Tertiary age exposed in the LVRVGB and surrounding area indicates an L shape for the physiography of this basin (Richard et al, 200). This is likely the influence of the confluence of Salt and Verde Rivers in the southern part of the basin, and the resulting erosion and sedimentation from both drainages. Both the residual aeromagnetic map of Arizona (Sauck and Sumner, 1970), and the residual Bouguer gravity anomaly maps of Arizona (Lysonski et al., 1981) show the axis of the LVRVGB striking in a north-northwest direction. Skotnicki (2003) indicates that this possibly reflects the deepest portion of the basin along the gravity low axis and located on the west side of a half graben produced by the Camp Creek fault with its down dropped side to the east-northeast (Figure 2). This structural morphology is common in the basins formed both during the Middle Tertiary Orogeny and the Basin and Range disturbance as well as the many that resulted from the overprinting of the latter on the former. Modeling of the gravity data indicates a maximum depth to bedrock in the LVRVGB of 4800 – 6400 feet (Oppenheimer and Sumner, 1980).

The more pertinent and complete geologic information of the LVRVGB is contained in Skotnicki (1995), and Skotnicki (2003).

Groundwater Hydrology

Hydrostratigraphy

Three stratigraphic units constitute the various components of the aquifer system of the LVRVGB. From older to younger they are: The Needle Rock Formation (map unit Tsn), the Pemberton Ranch Formation (map unit Tsp), and the younger basin-fill deposits (Table 1). The latter is composed of the younger and middle sedimentary basin-fill deposits (map units Tsy and Tsm of Skotnicki, 2003), and the unconsolidated alluvium (Thomsen and Schumann, 1968). The unconsolidated alluvium was mapped by Skotnicki (1995) and grouped into four major groups of which the Piedmont Deposits and the River Deposits may be water bearing. They are predominantly unconsolidated silt, sand and gravel, and in places convey the Verde River and its tributaries underflow. The younger basin-fill (consolidated alluvium of Thomsen and Schumann, 1968) has low permeability measured in shallow wells in Sycamore Creek with results that ranged from 2-12 g/d-ft² as compared to the unconsolidated alluvium value of 5,200 g/d-ft².

The aquifer above the Pemberton Ranch Formation is termed the Alluvial Floodplain Aquifer (HSI, 2003). The Pemberton Ranch Formation is composed predominantly of siltstone, claystone and fine-grained sandstone which also contains minor coarse-grained sandstone and conglomerate and is considered an aquiclude/aquitard confining groundwater in the predominantly subjacent Needle Rock Formation (Figure 3). Deposited during a time period of slow subsidence of the LVRVGB it is in general, similar in lithology and depositional origin to thick fine-grained, low permeability clastic deposits of other basins of southern Arizona (Holzer and Lluria, 1987). The areal extension and thickness of the Pemberton Ranch Formation is an important factor in determining the possible hydraulic connection of the Alluvial Floodplain Aquifer and the Needle Rock Formation (regional aquifer). If the fine-grained unit is absent in the mountain front edges of the basin, as is frequent in other southern Arizona basins, direct recharge from runoff can take place directly to the regional aquifer.

The regional aquifer termed here the Confined Regional Aquifer (HSI, 2003), is contained within a conglomerate of the Needle Rock Formation in the Fountain Hills area. This unit, estimated to be as much as 1,000 feet thick (Deslauriers, 1977), appears to be well fractured providing adequate secondary porosity and permeability. The red unit may underlie the Needle Rock Formation as it does in parts of the East Salt River Basin, and be part of the Regional Confined Aquifer in the LVRVGB.

Aquifer Characteristics of the Regional Aquifer

Pumping tests carried out in the Fountain Hills (HSI, 2003, and E.L. Montgomery and Associates, Inc, 2004), and in the Goldfield Heights area indicate that the Regional Aquifer is confined. In the Fountain Hills area transmissivity ranged from 23,000 to 71,000 gpd/ft (HSI, 2003) with a storativity from 0.0044 to 0.00014. These were from short duration pump tests. Two production wells of the Chaparral City Water Company were pump-tested for 72 hours and gave transmissivities of 190,000 gpd/ft, and 209,000 gpd/ft, respectively. The storativity for these wells ranged from 0.00015 to 0.00092 (E.L. Montgomery and Associates, Inc., 2004). In the Goldfield Heights area (Preserve at Goldfield Ranch) a 72 hour pumping test was carried out in 1985 by E.L. Montgomery and Associates, Inc. Transmissivity values obtained from one well and an observation well averaged 45,000 gpd-ft with a storativity of 0.0002 (Southwest Groundwater Consultants, Inc., 2006).

Analysis and Observations

This report is based on available geologic and hydrogeologic data from previous work in the Fountain Hills and the Goldfield Heights area. Analysis of information shows:

- The area of the Preserve at Goldfield Ranch is located in the western side of the LVRVGB, a structural basin formed during the Basin and Range disturbance. Its axis strikes north-northwest as indicated by gravity and aeromagnetic surveys. Most of the faults mapped in the highlands surrounding the basin also strike north-northwest with down dropped sides to the northeast. Movement on the

Camp Creek fault may have formed a half graben which determined the structural morphology of the LVRVGB.

- An early period of high energy erosion and sedimentation in the LVRVGB deposited the Needle Rock Formation (predominantly conglomerates) which was fractured and constitutes the present day Confined Regional Aquifer. This period was followed by a quiescent period of sedimentation dominated by lacustrine deposits during slow subsidence of the basin. This lead to the deposition of the Pemberton Ranch Formation. This unit, as in other Basin and Range basins of Arizona, has rapid facies changes in both horizontal and vertical directions. It may be interbedded with coarse alluvial fan deposits near the edge of the basin. Because of the predominance of clay and silt resulting in low permeability, this unit is an aquiclude and imparts confinement to the regional aquifer where it overlies the Needle Rock Formation. After the regional integration of the drainage an active fluvial regimen deposited the younger basin-fill sediments which are partially covered with unconsolidated alluvium. These younger deposits and some of the more permeable portions of the basin-fill units overlying the Pemberton Ranch Formation form the Floodplain Alluvial Aquifer.
- After examination of numerous drillers logs from The Preserve at Goldfield Ranch, and adjacent areas we can conclude that there is insufficient good-quality information to map with sufficient reliability the extent of the Pemberton Ranch Formation. Only three wells on Section 10 of T3N R6E provide quality data (Figure 4). These are wells GE-1, GE-2 and GE-3, drilled in 1985 and logged by E.L. Montgomery and Associates, Inc. These wells intersect 250 feet of silty clay at 400 feet depth. These three wells are located on the northwest corner of Parcel A of the Preserve at Goldfield Ranch (Southwest Groundwater Consultants, 2006).
- The only pumping test available from the Preserve at Goldfield Ranch shows transmissivity and storativity values comparable to some of the wells in Fountain Hills. This single 72 hour test however, shows much lower transmissivity than 72

hour tests carried out in two of the municipal water supply wells in Fountain Hills. The storativity for these three wells are of the same magnitude.

- Examination of the 72 hour aquifer test of the two municipal supply wells in Fountain Hills shows a typical Confined aquifer response. In contrast the analysis of the 72 hour aquifer test of the Preserve at Goldfield Ranch shows a response more typical of a leaky confined aquifer or proximity of a recharge boundary. These conditions require further investigation.

Recommendations

To better define and map the extent of the Pemberton Ranch Formation (clay layer/aquiclude), the following is recommended:

- Drill two test boreholes to a depth of 1,000 feet. One at the location of the proposed recharge wells, and one approximately equidistant between the recharge wells and test borehole A (3-7) 24 cbd (Figure 4). Detailed lithologic logging and borehole geophysical logging should be carried out at each test hole.
- Undertake a geoelectric (TEM, CSAMT, CR) survey to determine depth and extent of the clay layer from the Verde River to the east and south boundaries of The Preserve at Goldfield Ranch.
- Undertake a 7 day pump test at well G-3 to establish the nature of the confined aquifer (confined/semi confined) and determine possible recharge of the regional aquifer from the alluvial aquifer.

Other Questions From The SRPMIC

Will groundwater level decline affect the community's water resources?

For a proper evaluation of the potential effects of pumping in the Preserve at Goldfield Ranch, a groundwater model needs to be developed.

Storm water and irrigation water may percolate into upper/middle aquifer and impact the Verde River (water quality)?

The abundance of fine-grained sediments in the soil system below the Preserve at Goldfield Ranch should produce a soil aquifer treatment effect on any water percolating in the soil and eliminate/mitigate any water quality impacts. A pilot test should be carried out.

Is the Fountain Hills (LVRVGB) in hydraulic connection with the East Salt River Valley Basin?

No, it is not.

The Use of Injection Wells for Reclaimed Water Recharge in the Phoenix Area

The storage of reclaimed water in the aquifer is currently practiced by many municipalities in both the Phoenix and Tucson areas. The preferred method for large volume is by water-spreading at direct surface recharge facilities. The recovery is then carried out using existing wells. Examples are the GRUSP and NAUSP projects in Phoenix and the Sweetwater facility in Tucson. Vadose zone wells are also used by some municipalities. Scottsdale's Water Campus has been using this methodology successfully for several years. The use of injection wells for reclaimed water recharge is more limited. Some of the reasons for this are:

- Smaller recharge water volume
- High cost of well construction
- High maintenance cost
- Water quality restrictions
- More monitoring requirements
- More detailed contingency plans

In some cases however, well injection is the preferred alternative. When available land is limited because of its high cost or inability to purchase or lease for the construction of recharge basins, and geologic conditions do not favor the use of vadose zone recharge wells, only injection wells can be employed.

Underground storage and in some cases recovery of reclaimed water is used by several municipalities in the Phoenix area. The first project was the INTEL recharge project in Chandler, where treated industrial effluent is injected into the Middle Alluvial Unit. There is no recovery of the injected water in this facility. There are four other projects that use injection. These are Tumbleweed Park (Chandler), Arrowhead Ranch (Glendale), Fountain Hills Sanitation District, and Pima Utilities.

The Fountain Hills Sanitation District Underground Storage Facility consists of four ASR (Aquifer Storage Recovery) wells which store reclaimed water in the Confined Regional Aquifer. Each well is designed for an injection and recovery rate of 400 gpm. The recharge and recovery operations are fully automated. The approximate cost of each well, fully equipped and instrumented, is approximately one million dollars. The facility also includes five monitor wells for monitoring of water quality and hydraulic impacts. With time and use the recharge specific capacity (the measurement of the ability to recharge) of the well diminishes due to the clogging from particulates, biological growth, and geochemical reactions. The wells then need to be rehabilitated. In the case of the ASR wells of the Fountain Hills Sanitary District, the cost of well rehabilitation is approximately \$100,000 per well (Small et al., 2007). The rehabilitation is required every three to five years.

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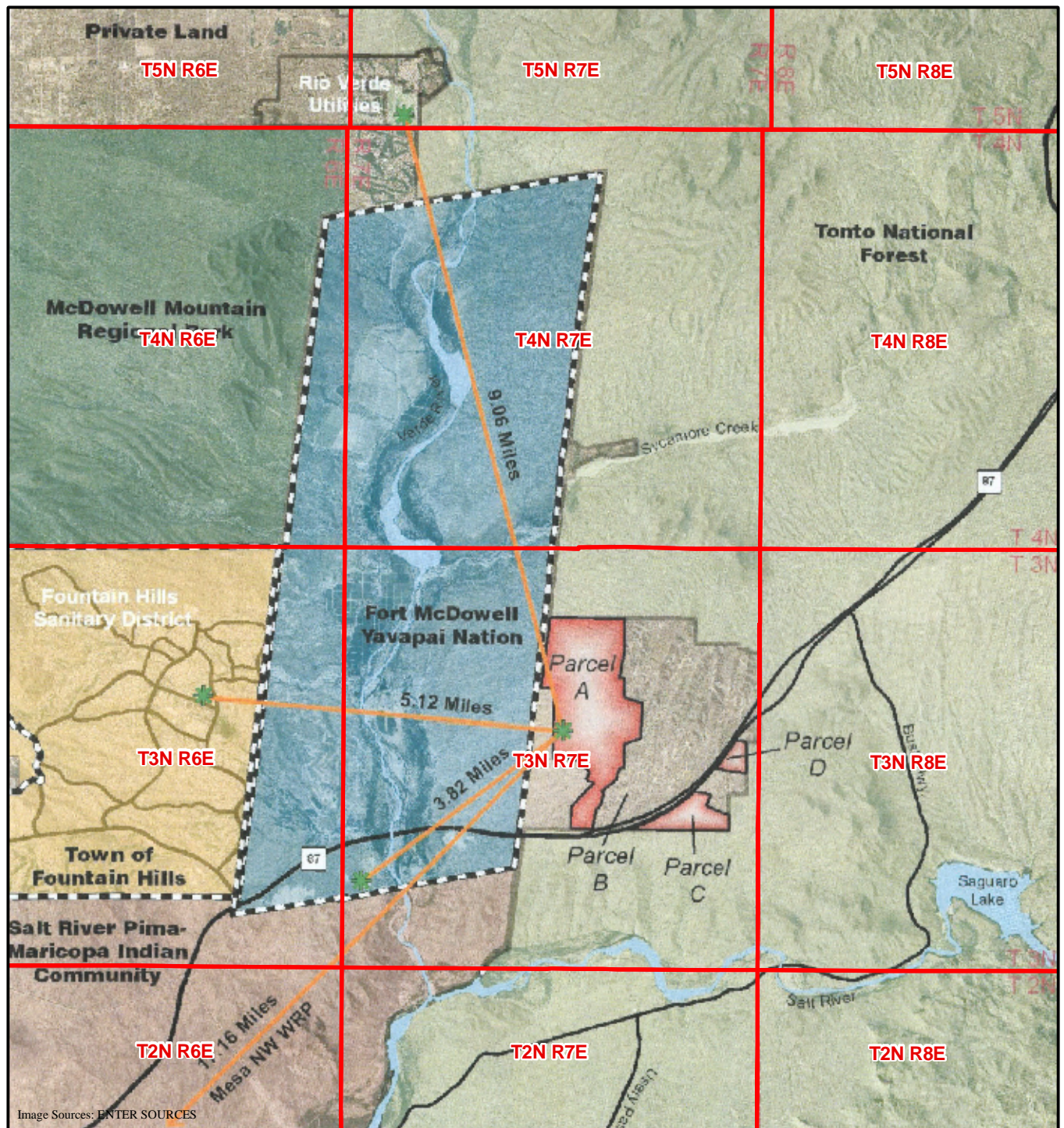


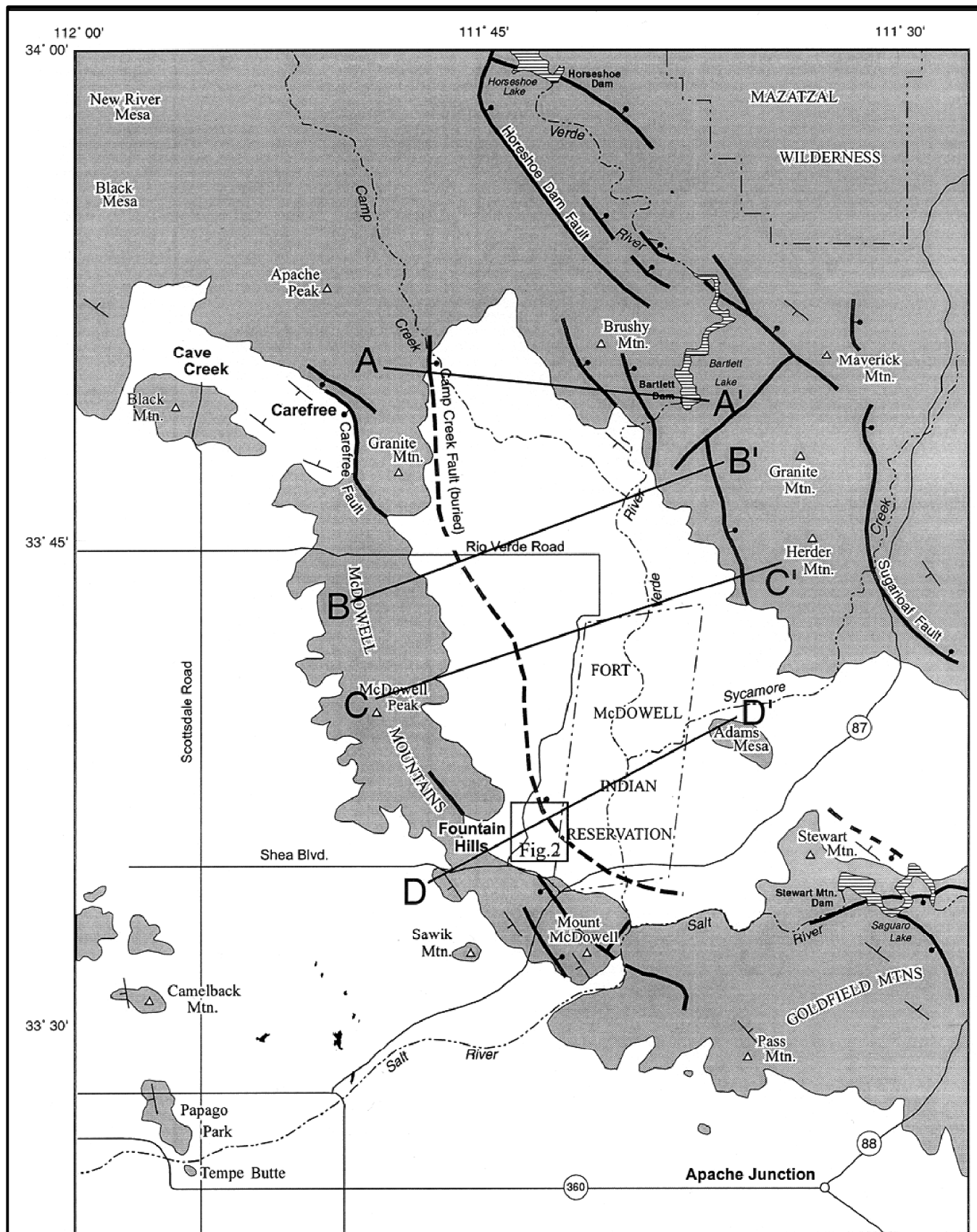
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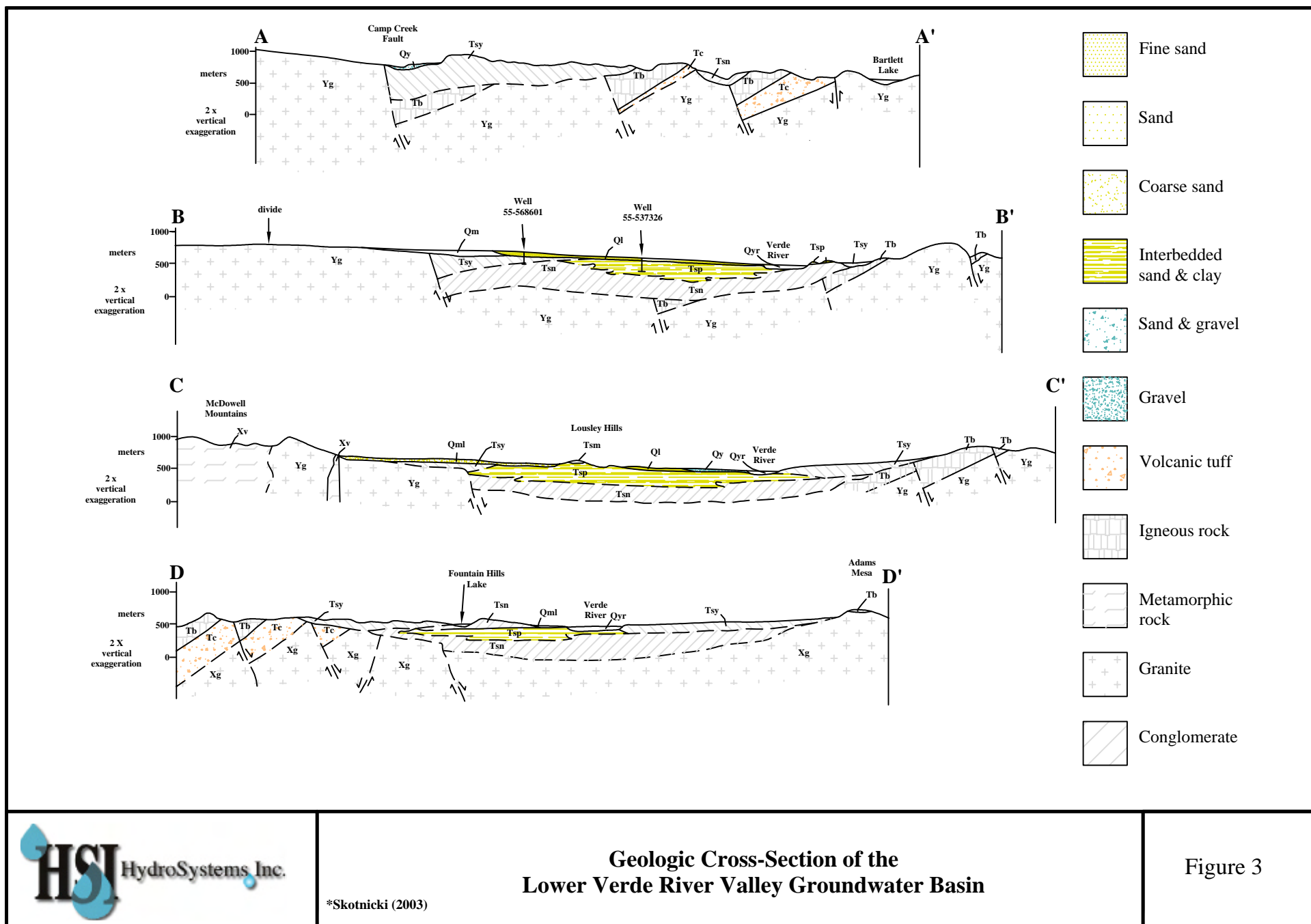
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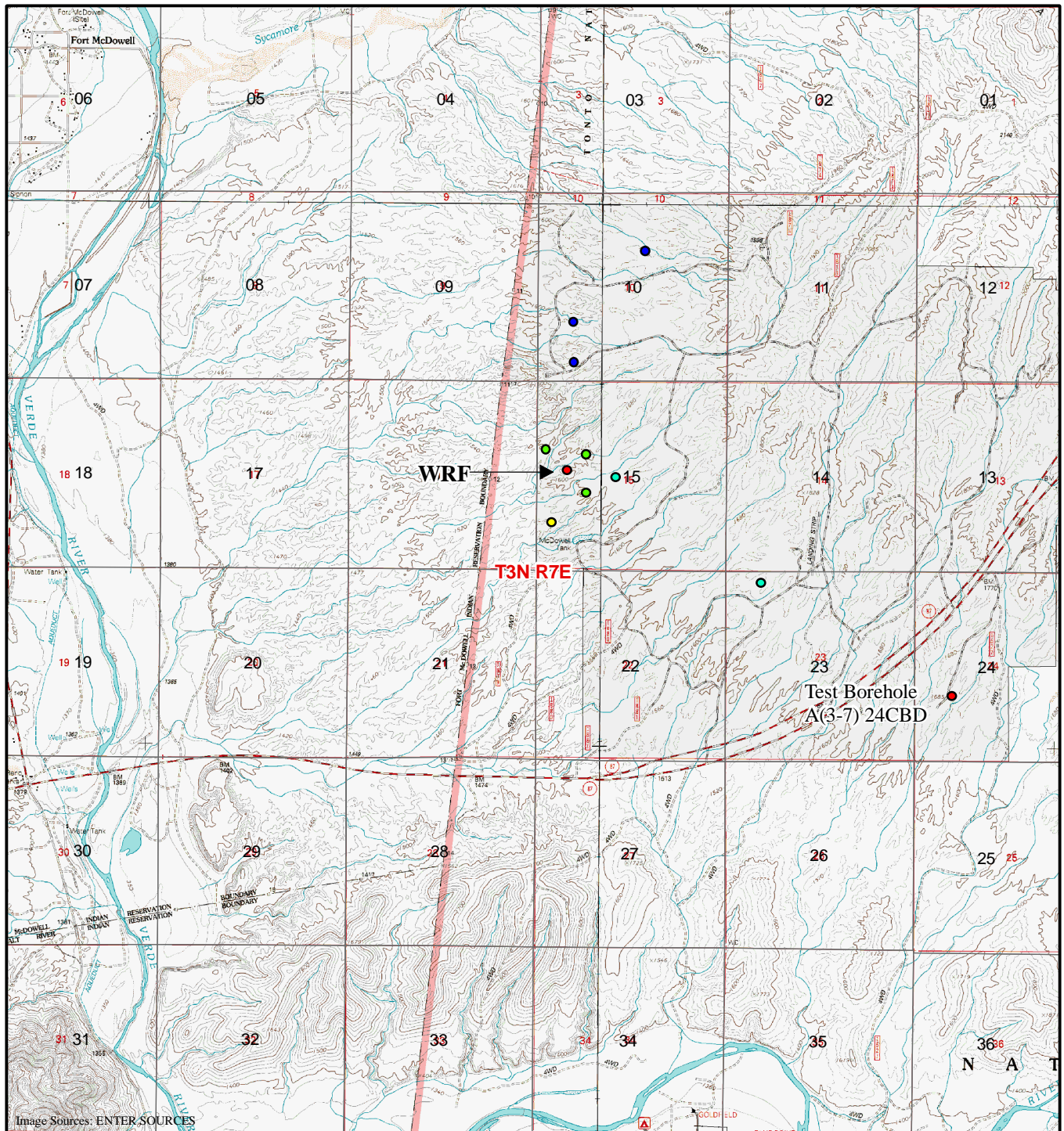


**Location Map
The Preserve at Goldfield Ranch**

Figure 1







Legend

- Proposed Monitor Well
- Recommended Test Wells
- Proposed Recharge Wells
- Water Supply Wells

0 0.5 1 2 Miles



The Preserve at Goldfield Ranch
Recommended Test Wells

Figure 5

Table 1

UNITS OF THE AQUIFER SYSTEM

Lower Verde River Valley Groundwater Basin

Unit	Formation	Age	Type	Predominant Lithology	Aquifer Type	Structural Association
Flood Plain Alluvial Aquifer	Alluvium	Holocene-Pleistocene	Alluvial/Fluviatile	Sand, gravel, silt	Unconfined	Youngest fluvial cycle
Clay Layer	Pemberton Ranch	Pleistocene-Pliocene	Lacustrine	Siltstone, claystone, minor sandstone	Aquiclude	Basin & Range: disturbance basin subsidence
Confined Regional Aquifer	Needle Rock	Late Miocene	Fluviatile: high energy	Conglomerates, breccias, sandstone	Confined/Semi-Confined	Basin & Range disturbance: high angle faulting

Appendix B – Department of Environmental Quality – Water Quality Standards

Department of Environmental Quality – Water Quality Standards

BASIN	SEGMENT	LOCATION	A&Wc	A&Ww	A&We	A&Wedw	FBC	PBC	DWS	FC	AgI	AgL
VR	Meath Dam Tank	35°07'46"/112°27'35"		A&Ww			FBC			FC		AgL
VR	Mullican Place Tank	34°44'16"/111°36'08"		A&Ww			FBC			FC		AgL
VR	Oak Creek (Unique Water)	Headwaters to confluence with unnamed tributary at 34°57'08.5"/111°45'13"	A&Wc				FBC		DWS	FC	AgI	AgL
VR	Oak Creek (Unique Water)	Below confluence with unnamed tributary		A&Ww			FBC		DWS	FC	AgI	AgL
VR	Oak Creek, West Fork (Unique Water)	Tributary to Oak Creek at 34°59'13"/111°44'46"	A&Wc				FBC			FC		AgL
VR	Odell Lake	34°56'02"/111°37'52"	A&Wc				FBC			FC		
VR	Peck's Lake	34°47'07"/112°02'30"	A&Wc				FBC			FC	AgI	AgL
VR	Perkins Tank	35°06'42"/112°04'08"	A&Wc				FBC			FC		AgL
VR	Pine Creek	Headwaters to confluence with unnamed tributary at 34°21'51"/111°26'46"	A&Wc				FBC		DWS	FC	AgI	AgL
VR	Pine Creek	Below confluence with unnamed tributary		A&Ww			FBC		DWS	FC	AgI	AgL
VR	Red Creek	Tributary to the Verde River at 34°09'47"/111°43'12"		A&Ww			FBC			FC		AgL
VR	Red Lake	35°12'19"/113°03'55"		A&Ww			FBC			FC		AgL
VR	Reservoir #1	35°13'05"/111°50'07"		A&Ww			FBC			FC		
VR	Reservoir #2	35°13'16"/111°50'36"		A&Ww			FBC			FC		
VR	Roundtree Canyon Creek	Tributary to Tangle Creek at 34°09'04"/111°48'18"		A&Ww			FBC			FC		AgL
VR	Scholze Lake	35°11'53"/112°00'31"		A&Ww			FBC			FC		AgL
VR	Spring Creek	Headwaters to confluence with unnamed tributary at 34°57'23.5"/111°57'19"	A&Wc				FBC			FC	AgI	AgL
VR	Spring Creek	Below confluence with unnamed tributary to Oak Creek		A&Ww			FBC			FC	AgI	AgL
VR	Steel Dam Lake	35°13'36"/112°24'51"	A&Wc				FBC			FC		AgL
VR	Stehr Lake	34°21'59"/111°40'00"		A&Ww			FBC			FC		AgL
VR	Stone Dam Lake	35°13'36"/112°24'16"	A&Wc				FBC			FC	AgI	AgL
VR	Stoneman Lake	34°46'44"/111°31'05"	A&Wc				FBC			FC	AgI	AgL
VR	Sullivan Lake	34°51'46"/112°27'41"		A&Ww			FBC			FC	AgI	AgL
VR	Sycamore Creek	Headwaters to confluence with unnamed tributary at 35°03'40"/111°57'28"	A&Wc				FBC			FC	AgI	AgL
VR	Sycamore Creek	Below confluence with unnamed tributary		A&Ww			FBC			FC	AgI	AgL
VR	Sycamore Creek	Tributary to Verde River at 33°37'55"/111°39'58"		A&Ww			FBC			FC	AgI	AgL
VR	Sycamore Creek	Tributary to Verde River at 34°04'42"/111°42'14"		A&Ww			FBC			FC		AgL
VR	Tangle Creek	Tributary to the Verde River at 34°05'06"/111°42'36"		A&Ww			FBC			FC	AgI	AgL
VR	Trinity Tank	35°27'44"/112°47'56"		A&Ww			FBC			FC		AgL
VR	Verde River	Above Bartlett Dam		A&Ww			FBC			FC	AgI	AgL
VR	Verde River	Below Bartlett Dam		A&Ww			FBC		DWS	FC	AgI	AgL
VR	Walnut Creek	Tributary to Big Chino Wash at 34°58'12"/112°34'55"		A&Ww			FBC			FC		AgL
VR	Watson Lake	34°35'15"/112°25'05"		A&Ww			FBC			FC	AgI	AgL
VR	Webber Creek	Tributary to the East Verde River at 34°18'50"/111°19'55"	A&Wc				FBC			FC		AgL
VR	West Clear Creek	Headwaters to confluence with Meadow Canyon at 34°33'40"/111°31'30"	A&Wc				FBC			FC		AgL
VR	West Clear Creek	Below confluence with Meadow Canyon		A&Ww			FBC			FC	AgI	AgL
VR	Wet Beaver Creek	Headwaters to unnamed springs at 34°41'17"/111°34'34"	A&Wc				FBC			FC	AgI	AgL
VR	Wet Beaver Creek	Below unnamed springs		A&Ww			FBC			FC	AgI	AgL
VR	Whitehorse Lake	35°07'00"/112°00'47"	A&Wc				FBC		DWS	FC	AgI	AgL
VR	Williamson Valley Wash	Headwaters to confluence with Mint Wash at 34°49'05"/112°37'55"			A&We			PBC				AgL

Appendix B. List of Surface Waters and Designated Uses**Abbreviations****River Basins**

BW = Bill Williams

CM = Colorado Mainstem (includes Red Lake)

LC = Little Colorado

MG = Middle Gila (includes Gila River below San Carlos Indian Reservation, Salt River below Granite Reef Dam and Phoenix area waterbodies)

RM = Rios de Mexico (includes Rio Magdalena, Rio Sonoita, and Rio Yaqui Basins)

SC = Santa Cruz

SP = San Pedro

SR = Salt River (includes Salt River and tributaries above Granite Reef Dam)

UG = Upper Gila (includes Gila River and tributaries above San Carlos Indian Reservation)

VR = Verde River

WP = Wilcox Playa

Designated Uses

A&Wc = Aquatic and Wildlife cold water

A&Ww = Aquatic and Wildlife warm water

A&We = Aquatic and Wildlife ephemeral

A&Wedw = Aquatic and Wildlife effluent dependent water

FBC = Full-body Contact

PBC = Partial-body Contact

DWS = Domestic Water Source

FC = Fish Consumption

AgI = Agricultural Irrigation

AgL = Agricultural Livestock Watering

Other

U = Unique Water

EDW = Effluent-dependent Water

WWTP = Wastewater Treatment Plant

Km = kilometers

BASIN	SEGMENT	LOCATION	A&Wc	A&Ww	A&We	A&Wedw	FBC	PBC	DWS	FC	AgI	AgL
BW	Alamo Lake	34°14'45"/113°35'00"		A&Ww			FBC			FC		AgL
BW	Big Sandy River	Tributary to the Santa Maria River at 34°18'36"/113°31'34"		A&Ww			FBC			FC		AgL
BW	Bill Williams River	Tributary to the Colorado River at 34°18'04"/114°08'10"		A&Ww			FBC			FC		AgL
BW	Blue Tank	34°40'14"/112°58'16"		A&Ww			FBC			FC		AgL
BW	Boulder Creek	Headwaters to confluence with unnamed tributary at 34°41'14"/113°03'34"	A&Wc				FBC			FC	AgI	AgL
BW	Boulder Creek	Below confluence with unnamed tributary		A&Ww			FBC			FC	AgI	AgL
BW	Burro Creek (Unique Water)	Headwaters to confluence with Boulder Creek at 34°36'47"/113°18'00"		A&Ww			FBC			FC		AgL
BW	Burro Creek	Below confluence with Boulder Creek		A&Ww			FBC			FC		AgL
BW	Conger Creek	Headwaters to confluence with unnamed tributary at 34°45'13"/113°05'45"	A&Wc				FBC			FC		AgL
BW	Conger Creek	Below confluence with unnamed tributary		A&Ww			FBC			FC		AgL
BW	Coors Lake	34°36'20"/113°11'25"		A&Ww			FBC			FC		
BW	Copper Basin Wash	Headwaters to confluence with unnamed tributary at 34°28'11"/112°35'31"	A&Wc				FBC			FC		AgL
BW	Copper Basin Wash	Below confluence with unnamed tributary			A&We			PBC				AgL
BW	Cottonwood Canyon	Headwaters to Bear Trap Spring at 34°45'10"/112°52'32"	A&Wc				FBC			FC		AgL
BW	Cottonwood Canyon	Below Bear Trap Spring		A&Ww			FBC			FC		AgL
BW	Date Creek	Tributary to the Santa Maria River at 34°18'11"/113°29'53"		A&Ww			FBC			FC		AgL

Department of Environmental Quality – Water Quality Standards

Appendix A: Numeric Water Quality Criteria							
Table 1. Human Health and Agricultural Designated Uses							
PARAMETER	CAS* NUMBER	DWS (µg/L)	FC (µg/L)	FBC (µg/L)	PBC (µg/L)	AgI (µg/L)	AgL (µg/L)
Acenaphthene	83-32-9	420	2670	84,000	84,000	NNS	NNS
Acenaphthylene	208-96-8	NNS	NNS	NNS	NNS	NNS	NNS
Acrolein	107-02-8	3.5	25	700	700	NNS	NNS
Acrylonitrile	107-13-1	0.07	0.7	3	56,000	NNS	NNS
Alachlor	15972-60-8	2	NNS	14,000	14,000	NNS	NNS
Aldrin	309-00-2	0.002	0.0001	0.08	42	p	p
Ammonia	7664-41-7	NNS	NNS	NNS	NNS	NNS	NNS
Anthracene	120-12-7	2100	1000	420,000	420,000	NNS	NNS
Antimony (as Sb)	7440-36-0	6 T	4,300 T	560 T	560 T	NNS	NNS
Arsenic (as As)	7440-38-2	50 T	1450 T	50 T	420 T	2000 T	200 T
Asbestos	1332-21-4	a	NNS	NNS	NNS	NNS	NNS
Atrazine	1912-24-9	3	NNS	49,000	49,000	NNS	NNS
Barium (as Ba)	7440-39-3	2000 T	NNS	98,000 T	98,000 T	NNS	NNS
Benzene	71-43-2	5	140	93	93	NNS	NNS
Benzidine	92-87-5	0.0002	0.001	0.01	4,200	0.01	0.01
Benz (a) anthracene	56-55-3	0.048	0.49	1.9	1.9	NNS	NNS
Benzo (a) pyrene	50-32-8	0.2	0.05	0.2	0.2	NNS	NNS
Benzo (ghi) perylene	191-24-2	NNS	NNS	NNS	NNS	NNS	NNS
Benzo (k) fluoranthene	207-08-9	0.048	0.49	1.9	1.9	NNS	NNS
3,4-Benzofluoranthene	205-99-2	0.048	0.49	1.9	1.9	NNS	NNS
Beryllium (as Be)	7440-41-7	4 T	1,130 T	2,800 T	2,800 T	NNS	NNS
Bis (2-chloroethoxy) methane	111-91-1	NNS	NNS	NNS	NNS	NNS	NNS
Bis (2-chloroethyl) ether	111-44-4	0.03	1.4	1.3	1.3	NNS	NNS
Bis (2-chloroisopropyl) ether	108-60-1	280	174,400	56,000	56,000	NNS	NNS
Boron (as B)	7440-42-8	630 T	NNS	126,000 T	126,000 T	1000 T	NNS
Bromodichloromethane	75-27-4	TTHM	46	TTHM	28,000	NNS	NNS
p-Bromodiphenyl ether	101-55-3	NNS	NNS	NNS	NNS	NNS	NNS
Bromoform	75-25-2	TTHM	360	180	28,000	NNS	NNS
Bromomethane	74-83-9	9.8	4020	2000	2000	NNS	NNS
Butyl benzyl phthalate	85-68-7	1400	5200	280,000	280,000	NNS	NNS
Cadmium (as Cd)	7440-43-9	5 T	84 T	700 T	700 T	50 T	50 T
Carbofuran	1563-66-2	40	NNS	7,000	7,000	NNS	NNS
Carbon tetrachloride	56-23-5	5	4	11	980	NNS	NNS
Chlordane	57-74-9	2	0.002	4	700	NNS	NNS
Chlorine (total residual)	7782-50-5	700	NNS	140,000	140,000	NNS	NNS
Chlorobenzene	108-90-7	100	20,900	28,000	28,000	NNS	NNS
p-Chloro-m-cresol	59-50-7	NNS	NNS	NNS	NNS	NNS	NNS
2-Chloroethyl vinyl ether	110-75-8	NNS	NNS	NNS	NNS	NNS	NNS
Chloroform	67-66-3	TTHM	470	230	14,000	NNS	NNS
Chloromethane	74-87-3	NNS	NNS	NNS	NNS	NNS	NNS
Chloronaphthalene beta	91-58-7	560	4,300	112,000	112,000	NNS	NNS

Appendix A: Numeric Water Quality Criteria							
Table 1. Human Health and Agricultural Designated Uses							
PARAMETER	CAS* NUMBER	DWS (µg/L)	FC (µg/L)	FBC (µg/L)	PBC (µg/L)	AgI (µg/L)	AgL (µg/L)
2-Chlorophenol	95-57-8	35	400	7,000	7,000	NNS	NNS
4-Chlorophenyl phenyl ether	7005-72-3	NNS	NNS	NNS	NNS	NNS	NNS
Chromium (as Cr III)	16065-83-1	10,500 T	1,010,000 T	2,100,000 T	2,100,000 T	NNS	NNS
Chromium (as Cr VI)	18540-29-9	21 T	2,000T	4,200 T	4,200 T	NNS	NNS
Chromium (Total as Cr)	7440-47-3	100 T	NNS	100 T	100 T	1000 T	1000 T
Chrysene	218-01-9	0.479	4.92	19.2	19	NNS	NNS
Copper (as Cu)	7440-50-8	1,300 T	NNS	1,300 T	1,300 T	5000 T	500 T
Cyanide	57-12-5	200 T	215,000 T	28,000 T	28,000 T	NNS	200 T
Dalapon	75-99-0	200	161,500	42,000	42,000	NNS	NNS
Dibenz (ah) anthracene	53-70-3	0.048	0.20	1.9	1.9	NNS	NNS
Dibromochlorometha ne	124-48-1	TTHM	34	TTHM	28,000	NNS	NNS
1,2-Dibromo-3- chloropropane (DBCP)	96-12-8	0.2	NNS	2,800	2,800	NNS	NNS
1,2-Dibromoethane (EDB)	106-93-4	0.05	NNS	0.05	0.05	NNS	NNS
Dibutyl phthalate	84-74-2	700	12,100	140,000	140,000	NNS	NNS
1,2-Dichlorobenzene	95-50-1	600	2800	126,000	126,000	NNS	NNS
1,3-Dichlorobenzene	541-73-1	NNS	NNS	NNS	NNS	NNS	NNS
1,4-Dichlorobenzene	106-46-7	75	77,500	560,000	560,000	NNS	NNS
3,3'- Dichlorobenzidine	91-94-1	0.08	0.08	3.1	3.1	NNS	NNS
p,p'- Dichlorodiphenyldic hloroethane (DDD)	72-54-8	0.15	0.001	5.8	5.8	0.001	0.001
p,p'- Dichlorodiphenyldic hloroethylene (DDE)	72-55-9	0.1	0.001	4.1	4.1	0.001	0.001
p,p'- Dichlorodiphenyltric hloroethane (DDT)	50-29-3	0.1	0.0006	4.1	700	0.001	0.001
1,1-Dichloroethane	75-34-3	NNS	NNS	NNS	NNS	NNS	NNS
1,2-Dichloroethane	107-06-2	5	100	15	280,000	NNS	NNS
1,1-Dichloroethylene	75-35-4	7	320	230	12,600	NNS	NNS
1,2-cis- Dichloroethylene	156-59-2	70	NNS	70	70	NNS	NNS
1,2-trans- Dichloroethylene	156-60-5	100	136,000	28,000	28,000	NNS	NNS
Dichloromethane	75-09-2	5	1600	190	84,000	NNS	NNS
2,4-Dichlorophenol	120-83-2	21	800	4,200	4,200	NNS	NNS
2,4- Dichlorophenoxyacet ic acid (2,4-D)	94-75-7	70	NNS	14,000	14,000	NNS	NNS
1,2-Dichloropropane	78-87-5	5	236,000	126,000	126,000	NNS	NNS
1,3-Dichloropropene	542-75-6	2	1,700	420	420	NNS	NNS
Dieldrin	60-57-1	0.002	0.0001	0.09	70	p	p
Diethyl phthalate	84-66-2	5600	118,000	1,120,000	1,120,000	NNS	NNS
Di (2-ethylhexyl) adipate	103-23-1	400	NNS	1,200	840,000	NNS	NNS
Di (2-ethylhexyl) phthalate	117-81-7	6	7.4	100	28,000	NNS	NNS
2,4-Dimethylphenol	105-67-9	140	2300	28,000	28,000	NNS	NNS

Department of Environmental Quality – Water Quality Standards

Appendix A: Numeric Water Quality Criteria							
Table 1. Human Health and Agricultural Designated Uses							
PARAMETER	CAS* NUMBER	DWS (µg/L)	FC (µg/L)	FBC (µg/L)	PBC (µg/L)	AgI (µg/L)	AgL (µg/L)
Dimethyl phthalate	131-11-3	NNS	NNS	NNS	NNS	NNS	NNS
4,6-Dinitro-o-cresol	534-52-1	28	7,800	5,600	5,600	NNS	NNS
2,4-Dinitrophenol	51-28-5	14	14,400	2,800	2,800	NNS	NNS
2,4-Dinitrotoluene	121-14-2	14	5,700	2,800	2,800	NNS	NNS
2,6-Dinitrotoluene	606-20-2	0.05	NNS	2	5,600	NNS	NNS
Di-n-octyl phthalate	117-84-0	2800	NNS	560,000	560,000	NNS	NNS
Dinoseb	88-85-7	7	NNS	1,400	1,400	NNS	NNS
1,2-Diphenylhydrazine	122-66-7	0.04	0.5	1.8	1.8	NNS	NNS
Diquat	85-00-7	20	NNS	3,080	3,080	NNS	NNS
Endosulfan sulfate	1031-07-8	NNS	NNS	NNS	NNS	NNS	NNS
Endosulfan (Total)	115-29-7	42	240	8,400	8,400	NNS	NNS
Endosulfan	145-73-3	100	NNS	28,000	28,000	NNS	NNS
Endrin	72-20-8	2	0.8	420	420	0.004	0.004
Endrin aldehyde	7421-93-3	NNS	NNS	NNS	NNS	NNS	NNS
Ethylbenzene	100-41-4	700	28,700	140,000	140,000	NNS	NNS
Ethyl chloride	75-00-3	NNS	NNS	NNS	NNS	NNS	NNS
Fluoranthene	206-44-0	280	380	56,000	56,000	NNS	NNS
Fluorene	86-73-7	280	14,400	56,000	56,000	NNS	NNS
Fluoride	7782-41-4	4000	NNS	84,000	84,000	NNS	NNS
Glyphosate	1071-83-6	700	1,077,000	140,000	140,000	NNS	NNS
Heptachlor	76-44-8	0.4	0.0002	0.4	700	NNS	NNS
Heptachlor epoxide	1024-57-3	0.2	0.0001	0.2	18	NNS	NNS
Hexachlorobenzene	118-74-1	1	0.001	1	1,120	NNS	NNS
Hexachlorobutadiene	87-68-3	0.45	50	18	280	NNS	NNS
Hexachlorocyclohexane alpha	319-84-6	0.006	0.01	0.22	11,200	NNS	NNS
Hexachlorocyclohexane beta	319-85-7	0.02	0.02	0.78	840	NNS	NNS
Hexachlorocyclohexane delta	319-86-8	NNS	NNS	NNS	NNS	NNS	NNS
Hexachlorocyclohexane gamma (lindane)	58-89-9	0.2	25	420	420	NNS	NNS
Hexachlorocyclopentadiene	77-47-4	50	580	9,800	9,800	NNS	NNS
Hexachloroethane	67-72-1	2.5	9	100	1,400	NNS	NNS
Indeno (1,2,3-cd) pyrene	193-39-5	0.048	0.49	1.9	1.9	NNS	NNS
Isophorone	78-59-1	37	2,600	1,500	280,000	NNS	NNS
Lead (as Pb)	7439-97-1	15 T	NNS	15 T	15 T	10000 T	100 T
Manganese (as Mn)	7439-96-5	980 T	NNS	196,000 T	196,000 T	10000	NNS
Mercury (as Hg)	7439-97-6	2 T	0.6 T	420 T	420 T	NNS	10 T
Methoxychlor	72-43-5	40	NNS	7,000	7,000	NNS	NNS
Naphthalene	91-20-3	140	20,500	28,000	28,000	NNS	NNS
Nickel (as Ni)	7440-02-0	140 T	4,600 T	28,000 T	28,000 T	NNS	NNS
Nitrate (as N)	14797-55-8	10000	NNS	2,240,000	2,240,000	NNS	NNS
Nitrite (as N)	14797-65-0	1000	NNS	140,000	140,000	NNS	NNS
Nitrate/Nitrite (as Total N)		10000	NNS	NNS	NNS	NNS	NNS
Nitrobenzene	98-95-3	3.5	1,900	700	700	NNS	NNS
o-Nitrophenol	88-75-5	NNS	NNS	NNS	NNS	NNS	NNS

Appendix A: Numeric Water Quality Criteria							
Table 1. Human Health and Agricultural Designated Uses							
PARAMETER	CAS* NUMBER	DWS (µg/L)	FC (µg/L)	FBC (µg/L)	PBC (µg/L)	AgI (µg/L)	AgL (µg/L)
p-Nitrophenol	100-02-7	NNS	NNS	NNS	NNS	NNS	NNS
N-nitrosodimethylamine	62-75-9	0.001	8	0.03	0.03	NNS	NNS
N-nitrosodiphenylamine	86-30-6	7.1	16	290	290	NNS	NNS
N-nitrosodi-n-propylamine	621-64-7	0.005	1.4	0.2	133,000	NNS	NNS
Oxamyl	23135-22-0	200	NNS	35,000	35,000	NNS	NNS
Pentachlorophenol	87-86-5	1	1000	12	42,000	NNS	NNS
Phenanthrene	85-01-8	NNS	NNS	NNS	NNS	NNS	NNS
Phenol	108-95-2	4200	1,000	840,000	840,000	NNS	NNS
Picloram	1918-02-1	500	24,300	98,000	98,000	NNS	NNS
Polychlorinated biphenyls (PCBs)	1336-36-3	0.5	0.007	28	28	0.001	0.001
Pyrene	129-00-0	210	10,800	42,000	42,000	NNS	NNS
Selenium (as Se)	7782-49-2	50 T	9000 T	7,000 T	7,000 T	20 T	50 T
Silver (as Ag)	7440-22-4	35 T	107,700 T	7,000 T	7,000 T	NNS	NNS
Simazine	112-34-9	4	NNS	7,000	7,000	NNS	NNS
Styrene	100-42-5	100	NNS	280,000	280,000	NNS	NNS
Sulfides		NNS	NNS	NNS	NNS	NNS	NNS
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	1746-01-6	0.0000003	0.000000004	0.00009	1.4	NNS	NNS
1,1,2,2-Tetrachloroethane	79-34-5	0.17	11	7	56,000	NNS	NNS
Tetrachloroethylene	127-18-4	5	3,500	14,000	14,000	NNS	NNS
Thallium (as Tl)	7440-28-0	2 T	7.2 T	112 T	112 T	NNS	NNS
Toluene	108-88-3	1000	201,000	280,000	280,000	NNS	NNS
Toxaphene	8001-35-2	3	0.001	1.3	1400	0.005	0.005
1,2,4-Trichlorobenzene	120-82-1	70	950	14,000	14,000	NNS	NNS
1,1,1-Trichloroethane	71-55-6	200	NNS	200	200	1000	NNS
1,1,2-Trichloroethane	79-00-5	5	42	25	5,600	NNS	NNS
Trichloroethylene	79-01-6	5	203,200	280,000	280,000	NNS	NNS
2,4,6-Trichlorophenol	88-06-2	3.2	6.5	130	130	NNS	NNS
2-(2,4,5-Trichlorophenoxy) propionic acid (2,4,5-TP)	93-72-1	50	NNS	11,200	11,200	NNS	NNS
Trihalomethanes, Total		100	NNS	NNS	NNS	NNS	NNS
Uranium (as Ur)	7440-61-1	35 D	NNS	NNS	NNS	NNS	NNS
Vinyl chloride	75-01-4	2	13	2	4,200	NNS	NNS
Xylenes (Total)	1330-20-7	10000	NNS	2,800,000	2,800,000	NNS	NNS
Zinc (as Zn)	7440-66-6	2100 T	69,000 T	420,000 T	420,000 T	10000 T	25000 T

*Chemical Abstract System (CAS) number is a unique identification number given to each chemical.

Department of Environmental Quality – Water Quality Standards

Appendix A: Numeric Water Quality Criteria Table 2. Aquatic & Wildlife Designated Uses								
PARAMETER	CAS NUMBER	A&Wc Acute (µg/L)	A&Wc Chronic (µg/L)	A&Ww Acute (µg/L)	A&Ww Chronic (µg/L)	A&Wedw Acute (µg/L)	A&Wedw Chronic (µg/L)	A&We Acute (µg/L)
Acenaphthene	83-32-9	850	550	850	550	850	550	NNS
Acenaphthylene	208-96-8	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Acrolein	107-02-8	34	30	34	30	34	30	NNS
Acrylonitrile	107-13-1	3800	250	3800	250	3800	250	NNS
Alachlor	15972-60-8	2500	170	2500	170	2500	170	NNS
Aldrin	309-00-2	2.0	NNS	2.0	NNS	2.0	NNS	4.5
Ammonia	7664-41-7	b	b	b	b	NNS	NNS	NNS
Anthracene	120-12-7	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Antimony (as Sb)	7440-36-0	88 D	30 D	88 D	30 D	1000 D	600 D	NNS
Arsenic (as As)	7440-38-2	360 D	190 D	360 D	190 D	360 D	190 D	440 D
Asbestos	1332-21-4	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Atrazine	1912-24-9	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Barium (as Ba)	7440-39-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Benzene	71-43-2	2700	180	2700	180	8800	560	NNS
Benzidine	92-87-5	1300	89	1300	89	1300	89	10000
Benz (a) anthracene	56-55-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Benzo (a) pyrene	50-32-8	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Benzo (ghi) perylene	191-24-2	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Benzo (k) fluoranthene	207-08-9	NNS	NNS	NNS	NNS	NNS	NNS	NNS
3,4-Benzofluoranthene	205-99-2	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Beryllium (as Be)	7440-41-7	65 D	5.3 D	65 D	5.3 D	65 D	5.3 D	NNS
Bis (2-chloroethoxy) methane	111-91-1	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Bis (2-chlorethyl) ether	111-44-4	120000	6700	120000	6700	120000	6700	NNS
Bis (2-chloroisopropyl) ether	108-60-1	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Boron (as B)	7440-42-8	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Bromodichloromethane	75-27-4	NNS	NNS	NNS	NNS	NNS	NNS	NNS
p-Bromodiphenyl ether	101-55-3	180	14	180	14	180	14	NNS
Bromoform	75-25-2	15000	10000	15000	10000	15000	10000	NNS
Bromomethane	74-83-9	5500	360	5500	360	5500	360	NNS
Butyl benzyl phthalate	85-68-7	1700	130	1700	130	1700	130	NNS
Cadmium (as Cd)	7440-43-9	c D	c D	c D	c D	c D	c D	c D
Carbofuran	1563-66-2	650	50	650	50	650	50	NNS
Carbon tetrachloride	56-23-5	18000	1100	18000	1100	18000	1100	NNS
Chlordane	57-74-9	2.4	0.004	2.4	0.21	2.4	0.21	3.2
Chlorine (total residual)	7782-50-5	11	5.0	11	5.0	11	5.0	NNS
Chlorobenzene	108-90-7	3800	260	3800	260	3800	260	NNS
p-Chloro-m-cresol	59-50-7	15	4.7	15	4.7	15	4.7	48000
2-Chloroethyl vinyl ether	110-75-8	180000	9800	180000	9800	180000	9800	NNS
Chloroform	67-66-3	14000	900	14000	900	14000	900	NNS
Chloromethane	74-87-3	270000	15000	270000	15000	270000	15000	NNS
Chloronaphthalene beta	91-58-7	NNS	NNS	NNS	NNS	NNS	NNS	NNS
2-Chlorophenol	95-57-8	2200	150	2200	150	2200	150	NNS
4-Chlorophenyl phenyl ether	7005-72-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Chromium (as Cr III)	16065-83-1	d D	d D	d D	d D	d D	d D	d D
Chromium (as Cr VI)	18540-29-9	16 D	11 D	16 D	11 D	16 D	11 D	34 D
Chromium (Total as Cr)	7440-47-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Chrysene	218-01-9	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Copper (as Cu)	7440-50-8	e D	e D	e D	e D	e D	e D	e D
Cyanide	57-12-5	22 T	5.2 T	41 T	9.7 T	41 T	9.7 T	84 T
Dibenz (ah) anthracene	53-70-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Dibromochloromethane	124-48-1	NNS	NNS	NNS	NNS	NNS	NNS	NNS

1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	NNS	NNS	NNS	NNS	NNS	NNS	NNS
1,2-Dibromoethane (EDB)	106-93-4	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Dibutyl phthalate	84-74-2	470	35	470	35	470	35	1100
1,2-Dichlorobenzene	95-50-1	790	300	1200	470	1200	470	5900
1,3-Dichlorobenzene	541-73-1	2500	970	2500	970	2500	970	NNS
1,4-Dichlorobenzene	106-46-7	560	210	2000	780	2000	780	6500
3,3'-Dichlorobenzidine	91-94-1	NNS	NNS	NNS	NNS	NNS	NNS	NNS
p,p'-Dichlorodiphenyldichloroethane (DDD)	72-54-8	1.1	0.001	1.1	0.02	1.1	0.02	1.1
p,p'-Dichlorodiphenyldichloroethylene (DDE)	72-55-9	1.1	0.001	1.1	0.02	1.1	0.02	1.1
p,p'-Dichlorodiphenyltrichloroethane (DDT)	50-29-3	1.1	0.001	1.1	0.001	1.1	0.001	1.1
1,1-Dichloroethane	75-34-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
1,2-Dichloroethane	107-06-2	59000	41000	59000	41000	59000	41000	NNS
1,1-Dichloroethylene	75-35-4	15000	950	15000	950	15000	950	NNS
1,2-cis-Dichloroethylene	156-59-2	NNS	NNS	NNS	NNS	NNS	NNS	NNS
1,2-trans-Dichloroethylene	156-60-5	68000	3900	68000	3900	68000	3900	NNS
Dichloromethane	75-09-2	97000	5500	97000	5500	97000	5500	NNS
2,4-Dichlorophenol	120-83-2	1000	88	1000	88	1000	88	NNS
2,4-Dichlorophenoxyacetic acid (2,4-D)	94-75-7	NNS	NNS	NNS	NNS	NNS	NNS	NNS
1,2-Dichloropropane	78-87-5	26000	9200	26000	9200	26000	9200	NNS
1,3-Dichloropropene	542-75-6	3000	1100	3000	1100	3000	1100	NNS
Dieldrin	60-57-1	2.5	0.002	2.5	0.002	2.5	0.005	4
Diethyl phthalate	84-66-2	26000	1600	26000	1600	26000	1600	NNS
Di(2-ethylhexyl) phthalate	117-81-7	400	360	400	360	400	360	3100
2,4-Dimethylphenol	105-67-9	1000	310	1000	310	1100	310	150000
Dimethyl phthalate	131-11-3	17000	1000	17000	1000	17000	1000	NNS
4,6-Dinitro-o-cresol	534-52-1	310	24	310	24	310	24	NNS
2,4-Dinitrophenol	51-28-5	110	9.2	110	9.2	110	9.2	NNS
2,4-Dinitrotoluene	121-14-2	14000	860	14000	860	14000	860	NNS
2,6-Dinitrotoluene	606-20-2	NNS	NNS	NNS	NNS	NNS	NNS	NNS
-Di-n-octyl phthalate	117-84-0	NNS	NNS	NNS	NNS	NNS	NNS	NNS
1,2-Diphenylhydrazine	122-66-7	130	11	130	11	130	11	NNS
Endosulfan sulfate	1031-07-8	0.22	0.06	0.22	0.06	0.22	0.06	3.0
Endosulfan (Total)	115-29-7	0.22	0.06	0.22	0.06	0.22	0.06	3.0
Endrin	72-20-8	0.18	0.002	0.2	0.08	0.2	0.08	0.7
Endrin aldehyde	7421-93-3	0.18	0.002	0.2	0.08	0.2	0.08	0.7
Ethylbenzene	100-41-4	23000	1400	23000	1400	23000	1400	NNS
Ethyl chloride	75-00-3	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Fluoranthene	206-44-0	2000	1600	2000	1600	2000	1600	NNS
Fluorene	86-73-7	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Fluorine	7782-41-4	NNS	NNS	NNS	NNS	NNS	NNS	NNS
Heptachlor	76-44-8	0.52	0.004	0.52	0.004	0.58	0.013	0.9
Heptachlor epoxide	1024-57-3	0.52	0.004	0.52	0.004	0.58	0.013	0.9
Hexachlorobenzene	118-74-1	6.0	3.7	NNS	NNS	NNS	NNS	NNS
Hexachlorobutadiene	87-68-3	45	8.2	45	8.2	45	8.2	NNS
Hexachlorocyclohexane alpha	319-84-6	1600	130	1600	130	1600	130	1600
Hexachlorocyclohexane beta	319-85-7	1600	130	1600	130	1600	130	1600
Hexachlorocyclohexane delta	319-86-8	1600	130	1600	130	1600	130	1600
Hexachlorocyclohexane gamma (lindane)	58-89-9	2.0	0.08	3.4	0.28	7.6	0.61	11

Appendix C – Documents Reviewed

Appendix C – Documents Reviewed

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May 16, 2008

Via Facsimile at (602) 393-1703 and U.S. Mail to:

*Susan D. Goodwin
Curtis Goodwin Sullivan Udall & Schwab PLC
501 E. Thomas Road
Phoenix, Arizona 85012-0001*

Re: MAG 208 Application / The Preserve at Goldfield Ranch

Dear Ms. Goodwin:

We were recently provided a letter from the Arizona Department of Environmental Quality ("ADEQ") stating that ADEQ "will not process the Aquifer Protection Permit for the project" until such time as the Tribes' concerns are "resolved." This correspondence appears to be causing some members of the Regional Council to reach the incorrect conclusion that ADEQ approval is required prior to or as part of MAG's approval, or that there must be consensus among the surrounding communities for an application to be approved by Regional Council.

We believe, unless you immediately advise us in writing otherwise, that MAG has specific criteria by which they must review the technical sufficiency of an application. These criteria are set forth in Section 4.5.2(2) of the 2002 MAG 208 Water Quality Management Plan. These criteria require, among other things, "the review and comment of any municipality whose Small Plant Planning Area is within three miles of the proposed plant location or service area." However these criteria do not require consensus among all of the surrounding communities.

Moreover, it is important for all to recognize that MAG's review is part of a serial process, and limited to the criteria set forth in the 2002 MAG Water Quality Management Plan. Once Regional Council has acted on this application, an application for an Aquifer Protection Permit ("APP") will be submitted to the appropriate reviewing jurisdiction as part of the normal and customary process - ADEQ. The application and materials required for ADEQ's review are substantially more detailed, and ADEQ has the necessary resources to evaluate those materials. Any statements by ADEQ are premature at this time, and are not relevant to MAG's review.

May 16, 2008

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If our understanding is incorrect, please immediately advise us in writing.

Very truly yours,

Wendy R. Riddell
/jrm/
Wendy R. Riddell

WRR/

cc: Don Kile
Don Stapley



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Stephen A. Owens
Director

May 13, 2008

Lindy Bauer, Environmental Director
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, AZ 85003

Re: The Preserve at Goldfield Ranch Section 208 Review

Dear Ms. Bauer:

As you know, the Arizona Department of Environmental Quality (ADEQ) administers the Clean Water Act Section 208 water quality management planning process in Arizona. Through the Governor's designation, Councils of Government, such as the Maricopa Association of Government (MAG), provide local review of proposed municipal wastewater projects to determine consistency with the local and state water quality management general plan. ADEQ has approved MAG's October 2002 Water Quality Management Plan, which outlines the substantive and procedural requirements for MAG and ADEQ approval of a municipal wastewater project.

We understand that the MAG Regional Council may act on the Section 208 Small Plant Process review of The Preserve at Goldfield Ranch (the project) at its meeting on May 28, 2008. We have been contacted by both the Salt River Pima-Maricopa Indian Community and the Fort McDowell Yavapai Nation regarding their concerns about the proposed project. We have learned that MAG's Water Quality Advisory Committee, on March 20, and MAG's Management Committee, on April 9, have passed the project despite letters of concern issued in December 2007 by both communities and presentations by both communities at the March 20 and April 9 MAG subcommittee meetings in which the communities raised a number of concerns about the project that have not been addressed to their satisfaction.

MAG's approved October 2002 Water Quality Management Plan states: "Projects within three miles of a Municipal Small Plant Planning Area would be reviewed and commented on by the affected City or Town. Projects with major problems to the City or Town which could not be resolved, would not receive compliance from ADEQ." Both tribal communities have MAG-designated Municipal Planning Areas within three miles of the project. Therefore, it is ADEQ's expectation that the water quality management related concerns of the two tribal communities will be resolved by the project proponent and the project sponsor (Maricopa County) before the Regional Council approves the project and submits it to ADEQ. In accordance with our rules, ADEQ will not process the Aquifer Protection Permit for the project until such objections are

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

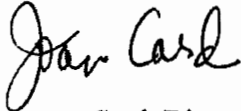
Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

Page 2 of 2
Ms. Bauer

resolved and approved by the Regional Council. *See* Arizona Administrative Code R18-9-A201(B)(6).

Please share this information with Regional Council members. If you have any questions, please feel free to contact me at (602) 771-2303, or Water Quality Division Deputy Director, Linda Taunt, at (602) 771-4416.

Sincerely,

A handwritten signature in black ink, appearing to read "Joan Card". The signature is fluid and cursive, with the first name "Joan" and last name "Card" clearly distinguishable.

Joan Card, Director
Water Quality Division

cc Brian Davidson, ADEQ Tribal Liaison



302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003
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May 13, 2008

The Honorable Don Stapley
Maricopa County Board of Supervisors
301 West Jefferson Street, 10th Floor
Phoenix, AZ 85003

Dear Supervisor Stapley:

Thank you for your May 8, 2008 letter regarding the memorandum discussing my reasoning in postponing the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility for one month until the May 28, 2008 Regional Council meeting. In your letter, you expressed concern with the postponement and the interpretation of the weighted voting procedure by MAG Special Counsel. I would like to take this opportunity to provide an update regarding the activities underway on the project and clarification of the MAG weighted voting procedure.

Since the transmittal of the memorandum, the Salt River Pima-Maricopa Indian Community (SRPMIC) has hired an independent consultant to investigate the information brought forward by the Salt River Project. The SRPMIC indicated that they will provide the report to MAG by May 15, 2008. In addition, the Chair of the MAG Water Quality Advisory Committee has requested that a meeting of the Committee be scheduled for May 22, 2008. This timing will enable the report to be mailed to the Water Quality Advisory Committee in their agenda packet for the meeting.

Regarding setting of the agenda, the MAG Bylaws, Article V, Section 3, provides that meetings of the Regional Council are called by the Chair and notice of such meetings shall be given by the Secretary, specifying the time, place and general purpose of the meeting. The practice at MAG has been for the Chair of the Regional Council to approve agendas before they are sent to the members.

Regarding the issue of having the Water Quality Advisory Committee review the information, I believe it is contemplated in the MAG 208 Water Quality Management Plan that issues be thoroughly reviewed before proposed facilities are considered by the Regional Council for action. If new information is developed, I believe it is appropriate that our technical committee that was established for that purpose review the information before Regional Council action is taken.

Regarding weighted voting, the Bylaws were interpreted by the MAG Special Counsel at the April 23, 2008 Regional Council meeting. Since the meeting, our Special Counsel has reviewed all material related to the weighted vote provision and the intent of the Regional Council when it was adopted. The interpretation provided at the April 23, 2008 meeting correctly follows the Bylaws. We have also

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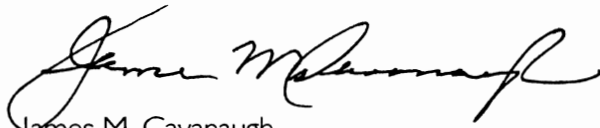
City of Apache Junction ▲ City of Avondale ▲ Town of Buckeye ▲ Town of Carefree ▲ Town of Cave Creek ▲ City of Chandler ▲ City of El Mirage ▲ Fort McDowell Yavapai Nation ▲ Town of Fountain Hills ▲ Town of Gila Bend
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reviewed the August 22, 2007 Regional Council minutes where a weighted vote was taken. It was consistent with the interpretation of the Bylaws that was provided at the April 23, 2008 Regional Council meeting.

Regarding the technical water issues you have raised, we will forward your comments to the MAG Water Quality Advisory Committee.

As I stated in my April 28, 2008 memorandum, I am confident a decision can be reached at the May Regional Council meeting.

Sincerely,

A handwritten signature in black ink, appearing to read "James M. Cavanaugh". The signature is fluid and cursive, with the first name "James" being more prominent.

James M. Cavanaugh
Chair, MAG Regional Council
Mayor of Goodyear

cc: MAG Regional Council



Maricopa County

DON STAPLEY

Board of Supervisors, District 2

301 West Jefferson Street
10th Floor
Phoenix, AZ 85003-2143
Phone: 602-506-7431
Fax: 602-506-6362
www.maricopa.gov

May 8, 2008

Mayor James Cavanaugh, City of Goodyear
190 North Litchfield Road
PO Box 5100
Goodyear, Arizona 85338

Mr. Dennis Smith, Executive Director
Maricopa Association of Governments
302 North First Avenue, Suite 300
Phoenix, Arizona 85003

RE: MAG 208 Small Plant Review and Approval for the Proposed Preserve
at Goldfield Ranch Water Reclamation Facility

Dear Mayor Cavanaugh and Mr. Smith:

I am in receipt of your memorandum dated April 28, 2008 explaining your unilateral decision to continue the matter of the Small Plant Review for the wastewater reclamation facility at the Preserve at Goldfield Ranch. After reading your memorandum, I felt it appropriate to provide a response to you, Mr. Dennis Smith, and each member of the MAG Regional Council.

CHAIRMAN'S ACTIONS

As stated on the record at the April 23rd MAG Regional Council hearing, I believe your decision to remove an application from the agenda was unwarranted and set a dangerous precedent.

Although there were numerous conversations related to the matter being placed on the agenda, it was withheld by your action alone, claiming a right to control the content of the agenda, without consideration of the other members of the Regional Council. Despite several letters requesting that this matter be put back on the agenda, including those from Phoenix, Chandler, Glendale and Maricopa County, you chose to disregard the request of the other MAG Regional Council members.

As we advised you in previous correspondence, we have thoroughly reviewed MAG by-laws and have not found any provisions that would allow the Chairman of the Regional Council to unilaterally remove items from an agenda or to keep items off an agenda. In addition, Robert's Rules of Order, while not adopted by MAG, are widely considered to be authoritative in matters of parliamentary procedure. According to RONR (10th ed.) p. 360, I.

10-35 agendas are to be adopted by the body and cannot be changed except by a two thirds majority vote.

This same logic is applicable to your decision and rumored plan to send the subject application back to the Water Quality Advisory Committee. I am unaware of any authority to make such a determination. In the very least, a Regional Council hearing should be called immediately and any request to send this back to the Water Quality Advisory Committee should be considered by the entire Council. Failure to obtain the Council's consideration violates due process.

WEIGHTED VOTING

We vehemently disagree with how MAG's Counsel has interpreted the effect of weighted voting. The interpretation provided at the hearing (based in part on a pamphlet not officially adopted by the Regional Council, yet appearing on MAG's website) requires an applicant to have both a numeric vote and the weighted vote. Such an interpretation of this section simply does not make sense. If an applicant has the numeric vote, then why would they need a weighted vote? If your answer is that the weighted vote is only intended to be a "blocking measure" then the business of MAG could be stalled entirely. Moreover, communities contribute to MAG on a weighted basis. If a weighted vote is as meaningless as your counsel has interpreted it to be, then those "weighted" communities would be well served to reduce their weighted contributions equal to the one vote they are receiving.

Please provide us with your written interpretation as to how the weighted voting is applied. Additionally, please provide us with all past examples of how it has been applied. If, upon further review, you conclude that MAG's counsel erred in this hasty interpretation, please immediately reschedule the April 23rd Regional Council hearing.

WATER QUALITY

In the statement you read into the record on April 23rd and in your memorandum dated April 28th, your purported reason for this decision is out of concern that the playa deposit may not underlay the entire basin. However, it should be recognized that the underlying geology of the site, and indeed the entire basin, is not a matter subjected to MAG's planning review of this small package plant. The relevant issue to be considered by MAG is whether the effluent will be treated to A+ levels thereby meeting the safe drinking water standards established by ADEQ and other agencies that properly have jurisdiction over the engineering of this small package plant. The subject application includes numerous assurances that effluent will be treated to A+ levels, and the reuse and recharge proposed is compliant with

the standard established by MAG in all previous environmental planning it has undertaken to date. As stewards of Water Quality for this region, we should be rewarding this plan for its commitment to achieve Safe Yield (a requirement of State law) and not thwarting it.

The findings of any report produced by any independent geological consultant related to the extent of the existence of the Pemberton Clays, or the subject playa deposit, are not at issue here. According to the 208 Amendment Application, the playa deposit is not proposed as the barrier between the recharge and the claim from the SRPMIC that such a recharge may introduce pollutants into their aquifer. The "barrier" is simply the A+ drinking water standards imposed by ADEQ. In very simple terms, the recharge of A+ effluent will result in a clean plume of water into the aquifer. This is undeniable and not disputed by any scientific body recognized by ADEQ.

CONCLUSION

If a matter is to be considered by MAG, it should be considered exclusively on its merits and within the charter intent of MAG. Further, it should be considered by the entire body.

As a Member Agency, we would expect that an application we are sponsoring be treated consistently with all other applications that are heard by the Regional Council. For MAG to operate effectively as the volunteer association of governments, it must follow its' by-laws, adopted criteria, and avoid the appearance of impropriety, favoritism or unequal treatment.

To remedy this situation, a Regional Council hearing should be scheduled immediately to consider the subject application on its merits and within the authority of this body. Anything else, such as subjecting the application to an unprecedented MAG engineering review, would intrude upon matters that are legally and properly best left to ADWR and ADEQ under Section 208 of the Clean Water Act.

Sincerely,

Don Stapley

Cc: MAG Regional Council members

April 28, 2008

TO: Members of the MAG Regional Council

FROM: Mayor James M. Cavanaugh, Goodyear, Chair

SUBJECT: DECISION REGARDING PLACING THE GOLDFIELD RANCH WATER
RECLAMATION FACILITY ON THE MAG REGIONAL COUNCIL AGENDA

At the April 23, 2008 MAG Regional Council meeting, there was a lengthy discussion regarding whether to proceed with the items on the agenda. It was requested that the majority of the agenda not proceed until the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility be placed on a MAG Regional Council agenda for a vote. As the MAG attorney indicated at the meeting, this item was not on the agenda and therefore, I was unable to discuss the rationale for not including it. At this time, I would like to discuss my reasoning in postponing this item for one month until the May 28, 2008 Regional Council meeting.

As the Regional Council agenda was being drafted, I was approached by the President of the Salt River Pima-Maricopa Indian Community (SRPMIC) requesting a one-month delay to provide them an opportunity to hire a consultant to further study this matter. They were rightly concerned regarding a recent letter from the Salt River Project (SRP) regarding the facility.

The SRP letter, dated April 8, 2008, indicated that SRP had reviewed the applicant's hydrology report used to support its Application of Analysis of Assured Water Supply, a report by Skotnicki and others (Arizona Geological Survey) and the geologic logs of 16 wells in the vicinity of the Preserve. It was SRP's opinion that the playa deposit does not underlie the entire basin, or the entire property in question. The Salt River Project then concluded that the applicant's argument that the playa forms a barrier was flawed, and that there was a hydraulic connection between the aquifer and the subflow of the Verde River.

The SRPMIC assured me that they would quickly hire an independent consultant to investigate the information brought forward by SRP and report back to the Regional Council in May. I also believed it would be important for their study to be reviewed by members of the MAG Water Quality Advisory Committee prior to the May Regional Council meeting.

The decision to postpone the item was made after careful consideration. There were very close votes by the MAG Water Quality Advisory Committee and MAG Management Committee on the facility. Based on the SRP letter and the close votes preceding the Regional Council, it was clear the subject matter was rife with uncertainty which could not be fully resolved before the April 23 Regional Council meeting. However, the uncertainty could be reduced, if not eliminated, in time for the May meeting after

we reviewed the report by the consultant hired by SRPMIC. Hence, postponement seemed appropriate action to me. Furthermore, I believed that it was important to show respect for the leadership of a Community concerned about the quality of drinking water for its citizenry.

After deciding not to place the item on the agenda and prior to the April 23, 2008 MAG Regional Council meeting, I received letters from three cities and Maricopa County requesting that the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility be placed on the meeting agenda. A written response was then provided to each of these entities indicating the rationale for postponing the item until the May 28, 2008 MAG Regional Council meeting.

It is important to add that the attorney for the Goldfield Preserve requested that I make a statement at the beginning of the April 23, 2008 MAG Regional Council meeting and I honored that request. At the meeting, I requested that any issues the MAG Regional Council members may have regarding the item be provided to MAG staff. I indicated that the issues will also be provided to the Goldfield Preserve representatives so they can be thoroughly investigated and there can be a productive discussion and decision reached at the May 28, 2008 MAG Regional Council meeting. My comments resulted from a specific request by the Goldfield Preserve attorney and were coordinated with him.

As a result of this postponement, I believe that the members of the Regional Council will have ample opportunity to thoroughly consider the Goldfield Preserve application. I am confident a decision can be reached at the May Regional Council meeting.



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April 23, 2008

The Honorable Boyd Dunn
City of Chandler
PO Box 4008 MS603
Chandler, AZ 85244-4008

Dear Mayor Dunn:

Thank you for your April 22, 2008 letter regarding the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility. The Salt River Pima-Maricopa Indian Community (SRPMIC) has requested that voting on the project be delayed due to the seriousness of the matter and new information provided by the Salt River Project with regard to the clay layer analysis. To accommodate the SRPMIC, the item has been postponed for one month and will be heard at the May 28, 2008 MAG Regional Council meeting.

The decision to continue the item was made after careful consideration. There were close votes by the MAG Water Quality Advisory Committee and MAG Management Committee on the facility. In addition, MAG received a letter from Salt River Project dated April 8, 2008. Salt River Project concluded that the applicant's argument that the playa forms a barrier is flawed, and that there is a hydraulic connection between the aquifer and the subflow of the Verde River. The SRPMIC has requested a one month delay to provide an opportunity for them to hire a consultant to further study this matter. It is important that the consultant study be reviewed by the MAG Water Quality Advisory Committee. MAG is in the process of scheduling a Committee meeting to review the information prior to the May 28, 2008 MAG Regional Council meeting.

Again, thank you for your letter and interest in the MAG 208 Water Quality Management Plan process. If you have any questions, please do not hesitate to contact me at (623) 882-7775.

Sincerely,

James M. Cavanaugh
Chair, MAG Regional Council
Mayor of Goodyear

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April 21, 2008

The Honorable Elaine Scruggs
City of Glendale
5850 W. Glendale Avenue
Glendale, AZ 85301

Dear Mayor Scruggs:

Thank you for your April 18, 2008 letter regarding the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility. The Salt River Pima-Maricopa Indian Community (SRPMIC) has requested that voting on the project be delayed due to the seriousness of the matter and new information provided by the Salt River Project with regard to the clay layer analysis. To accommodate the SRPMIC, the item has been postponed for one month and will be heard at the May 28, 2008 MAG Regional Council meeting.

The decision to continue the item was made after careful consideration. There were close votes by the MAG Water Quality Advisory Committee and MAG Management Committee on the facility. In addition, MAG received a letter from Salt River Project dated April 8, 2008. Salt River Project concluded that the applicant's argument that the playa forms a barrier is flawed, and that there is a hydraulic connection between the aquifer and the subflow of the Verde River. The SRPMIC has requested a one month delay to provide an opportunity for them to hire a consultant to further study this matter. It is important that the consultant study be reviewed by the MAG Water Quality Advisory Committee. MAG is in the process of scheduling a Committee meeting to review the information prior to the May 28, 2008 MAG Regional Council meeting.

Again, thank you for your letter and interest in the MAG 208 Water Quality Management Plan process. If you have any questions, please do not hesitate to contact me at (623) 882-7775.

Sincerely,

James M. Cavanaugh
Chair, MAG Regional Council
Mayor of Goodyear

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April 21, 2008

The Honorable Don Stapley
Maricopa County Board of Supervisors
301 W. Jefferson, 10th Floor
Phoenix, AZ 85003-2148

Dear Supervisor Stapley:

Thank you for your April 18, 2008 letter regarding the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility. The Salt River Pima-Maricopa Indian Community (SRPMIC) has requested that voting on the project be delayed due to the seriousness of the matter and new information provided by the Salt River Project with regard to the clay layer analysis. To accommodate the SRPMIC, the item has been postponed for one month and will be heard at the May 28, 2008 MAG Regional Council meeting.

The decision to continue the item was made after careful consideration. There were close votes by the MAG Water Quality Advisory Committee and MAG Management Committee on the facility. In addition, MAG received a letter from Salt River Project dated April 8, 2008. Salt River Project concluded that the applicant's argument that the playa forms a barrier is flawed, and that there is a hydraulic connection between the aquifer and the subflow of the Verde River. The SRPMIC has requested a one month delay to provide an opportunity for them to hire a consultant to further study this matter. It is important that the consultant study be reviewed by the MAG Water Quality Advisory Committee. MAG is in the process of scheduling a Committee meeting to review the information prior to the May 28, 2008 MAG Regional Council meeting.

Again, thank you for your letter and interest in the MAG 208 Water Quality Management Plan process. If you have any questions, please do not hesitate to contact me at (623) 882-7775.

Sincerely,

A handwritten signature in dark ink, appearing to read "James M. Cavanaugh".

James M. Cavanaugh
Chair, MAG Regional Council
Mayor of Goodyear

c: Joy Rich

A Voluntary Association of Local Governments in Maricopa County

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April 21, 2008

The Honorable Phil Gordon
City of Phoenix
200 W. Washington, 11th Floor
Phoenix, AZ 85003

Dear Mayor Gordon:

Thank you for your April 16, 2008 letter regarding the Small Plant Review and Approval for the Preserve at Goldfield Ranch Water Reclamation Facility. The Salt River Pima-Maricopa Indian Community (SRPMIC) has requested that voting on the project be delayed due to the seriousness of the matter and new information provided by the Salt River Project with regard to the clay layer analysis. To accommodate the SRPMIC, the item has been postponed for one month and will be heard at the May 28, 2008 MAG Regional Council meeting.

The decision to continue the item was made after careful consideration. There were close votes by the MAG Water Quality Advisory Committee and MAG Management Committee on the facility. In addition, MAG received a letter from Salt River Project dated April 8, 2008. Salt River Project concluded that the applicant's argument that the playa forms a barrier is flawed, and that there is a hydraulic connection between the aquifer and the subflow of the Verde River. The SRPMIC has requested a one month delay to provide an opportunity for them to hire a consultant to further study this matter. It is important that the consultant study be reviewed by the MAG Water Quality Advisory Committee. MAG is in the process of scheduling a Committee meeting to review the information prior to the May 28, 2008 MAG Regional Council meeting.

Again, thank you for your letter and interest in the MAG 208 Water Quality Management Plan process. If you have any questions, please do not hesitate to contact me at (623) 882-7775.

Sincerely,

James M. Cavanaugh
Chair, MAG Regional Council
Mayor of Goodyear

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Where Values Make The Difference

April 22, 2008

Boyd W. Dunn

Mayor

Office of the Mayor

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Mailing Address
Mail Stop 603
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Chandler, Arizona 85244-4008

Location
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55 North Arizona Place
Chandler, Arizona 85225

Honorable James Cavanaugh
City of Goodyear
P.O. Box 5100
190 North Litchfield Road
Goodyear, AZ 85338

Dear Mayor Cavanaugh:

Please accept this letter as my request to add the MAG 208 Small Plant Review regarding the Goldfield Ranch Water Reclamation Facility to the April 23, 2008 MAG Regional Council agenda.

Thank you for your consideration.

Sincerely,

Boyd W. Dunn
Mayor

cc: Dennis Smith, Executive Director,
Maricopa Association of Governments



ELAINE M. SCRUGGS
Mayor

April 18, 2008

Mayor Jim Cavanaugh
Chairman, MAG Regional Council
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, AZ 85003

Re: Small Plant Review
Preserve at Goldfield Ranch

Dear Mayor Cavanaugh:

It has come to my attention that the matter scheduled for MAG Regional Council review on April 23 has been removed from the agenda for an undetermined period of time.

As you are aware, this matter has been approved by both the MAG 208 technical committee (Water Advisory Committee) and the MAG Management Committee. Our assigned role as Regional Council members is to ratify the MAG 208 technical committee's recommendation that a sewer treatment plant complies with the Clean Water Act (section 208) and the region's capacity for sewer service.

The applicant has stated on the record at both the Water Advisory Committee and the Management Committee that additional studies related specifically to water quality and the feasibility of the proposed recharge systems will be produced in the normal course of planning. Further, these studies are required by ADEQ and ADWR as part of the public hearing process related to the Aquifer Protection permit and Underground Storage Facility permit process.

Please accept this letter as a request to put this matter back on the agenda for the MAG Regional Council's April 23, 2008 meeting.

Very truly yours,

Elaine M. Scruggs
Mayor

Cc: Supervisor Don Stapley, Maricopa County Board of Supervisors
Dennis Smith, Executive Director, Maricopa Association of Governments



Maricopa County

DON STAPLEY

Board of Supervisors, District 2

301 West Jefferson Street
10th Floor
Phoenix, AZ 85003-2143
Phone: 602-506-7431
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www.maricopa.gov

April 18, 2008

Mayor James Cavanaugh, City of Goodyear
190 North Litchfield Road
PO Box 5100
Goodyear, Arizona 85338

Mr. Dennis Smith, Executive Director
Maricopa Association of Governments
302 North First Avenue, Suite 300
Phoenix, AZ 85003

RE: MAG 208 Small Plant Review and Approval for the Proposed Preserve at
Goldfield Ranch Water Reclamation Facility


Dear Mayor Cavanaugh and Mr. Smith:

It has come to our attention that the MAG 208 Small Plant Review and Approval for the Proposed Preserve at Goldfield Ranch Water Reclamation Facility, an item scheduled to be placed before the Maricopa Association of Governments (MAG) Regional Council, was removed from the agenda by the Chairman of the Regional Council.

We have reviewed the MAG by-laws and have not found any provision that would allow the Chairman of the Regional Council to unilaterally remove items from an agenda or to keep items off of an agenda. In addition, Robert's Rules of Order, while not adopted by MAG, are widely considered to be authoritative in matters of parliamentary procedure. According to RONR (10th ed.) p. 360, l. 10-35 agendas are to be adopted by the body and cannot be changed except by a two thirds majority vote.

For the above stated reasons, we respectfully encourage you to place this matter back on the April 23, 2008, Regional Council agenda.

Sincerely,


Don Stapley, District 2 Supervisor
Maricopa County Board of Supervisors


Joy Rich
Assistant County Manager



City of Phoenix

OFFICE OF THE MAYOR

MAYOR PHIL GORDON

April 16, 2008

Honorable James Cavanaugh
City of Goodyear
P.O. Box 5100
190 N. Litchfield Road
Goodyear, AZ 85338

Dear Mayor Cavanaugh:

I respectfully request that you add the Draft MAG 208 Small Plant Review and the Proposed Preserve at Goldfield Ranch Water Reclamation Facility to the April 23, 2008, MAG Regional Council Agenda.

Thank you in advance for your consideration.

Sincerely,

Phil Gordon
Mayor



Fort McDowell Yavapai Nation

Office of the General Manager

P.O. Box 17779, Fountain Hills, AZ 85269 Phone (480) 837-7146 Fax (480) 816-0294

General Manager Phillip Dorchester Executive Assistant Yvonne Davis Events/Tourism Manager Rory Majenty
Government Relations Director Carole Klopatek

April 21, 2008

Mr. Dennis Smith
MAG Executive Director
Maricopa County Association of Governments
302 N. 1st. Ave., Suite 300
Phoenix, Arizona 85003

Dear Mr. Smith:

Fort McDowell Yavapai Nation's Tribal Council has asked that I communicate to you their official position regarding the MAG 208 Wastewater treatment plant for the Goldfield Preserve project. Please refer to the enclosed letter to Mr. Steve Ellman, owner of the Preserve at Goldfield Ranch project, stating that the Nation's official position is opposed to this 208 amendment.

Tribal Council did a full review of the proposed wastewater treatment plant. At the end of this session, Council unanimously concluded that there are too many unresolved issues regarding the plant. These issues include, but are not limited to, lack of information on the proposed facility, feasibility of injection wells, sludge management, impacts on the Nation, impacts to the Verde River, impacts to other water sources, as well as financial.

I hope this letter clears up any misconception of the Nation's official position.

Sincerely,

Phil Dorchester
General Manager

cc: Fort McDowell Yavapai Nation Tribal Council
Drew Ryce, General Counsel, FMYN
Dr. Carole Klopatek, Director of Government Relations



Fort McDowell Yavapai Nation

P.O. Box 17779, Fountain Hills, AZ 85269

Phone (480) 837-5121

Fax (480) 837-1630

President Dr. Clinton Pattea

Vice President Bernadine Burnette

Treasurer Pamela Mott

Council Member Paul Russell

Council Member Ruben Balderas

Council Secretary Pansy Thomas

April 17, 2008

Mr. Steve Ellman
Ellman Holdings
2850 E. Camelback Road, Suite 110
Phoenix, Arizona 85016

Dear Mr. Ellman:

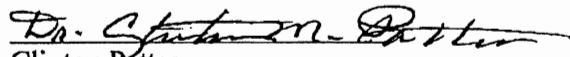
This letter is in regard to the Goldfield Ranch MAG 208 WASTEWATER TREATMENT PLANT for the Preserve at Goldfield Ranch. As you are aware, I have not been involved in the Goldfield Preserve as I only came into office in mid February. Thus, I appreciated you meeting with me and thank you for sharing your thoughts about the project, specifically in regard to the wastewater plant.

In my letter of April 15, I indicated that my initial reaction to this development was to discuss potentially mutually beneficial projects, the wastewater facility as being one. As clearly indicated to you, my position was not the official position of the Nation but that of a conversation between interested parties. However, our continued communication assumed that there were no outstanding environmental issues regarding the wastewater plant or that the Nation's water resources would not be harmed in any way. I also mentioned to you since I was not aware of all details of this project, I promised I would meet with Tribal Council to discuss the pros and the cons before April 23rd. Today, I have met with Council and we have gone over, in great detail, the proposed wastewater treatment plant. We carefully examined the extent of the project and the potential harm that could come to the Nation and the surrounding communities should this MAG 208 wastewater plant amendment move forward. The Council unanimously concluded that there are too many unresolved issues to provide you with the support you need to move forward. This is the Nation's official position. As I understand, these issues have been brought to your attention numerous times. I realize you may be disappointed by our decision. However, you must understand, as elected officials, Tribal Council serves the people of Fort McDowell Yavapai Nation and we must take all points into consideration in our evaluation process.

If you have any further information regarding this development, please feel free to submit this information to the Nation in writing.

Again, it was pleasure speaking with you.

Respectfully,

A handwritten signature in cursive script, appearing to read "Clinton Pattea".

Clinton Pattea

President

cc: Tribal Council
Phil Dorchester, GM, FMYN
Supervisor Stapley
MAG



SALT RIVER

PIMA-MARICOPA INDIAN COMMUNITY

10005 East Osborn Road / Scottsdale, Arizona 85256-9722 Phone (480) 362-7400/Fax (480) 362-7593

April 15, 2008

Chairperson James M. Cavanaugh
Regional Council
Maricopa County Association of Governments
City of Goodyear
190 North Litchfield Road
Goodyear, Arizona 85338

Dear Chairperson Cavanaugh,

I'm writing in reference to the April 11, 2008 letter I sent to you regarding our position on the Preserve at Goldfield Ranch 208 Application. Due to the seriousness of this matter and the new information submitted by the Salt River Project (SRP) relative to the clay layer analysis, I am requesting a delay on the Goldfield 208 application vote scheduled on April 23, 2008 in order to request further study of this matter. The Salt River Project letter is dated April 8, 2008 and was not available for review by the MAG Water Quality Advisory Committee. It was sent to MAG Management Committee members two hours before their vote. As such, more time will allow for careful review of the scientific data.

On behalf of the Salt River Pima-Maricopa Indian Community we request you oppose the Goldfield 208 application. I thank you for your careful consideration of the request.

Sincerely,

Diane Enos
President



SALT RIVER

PIMA-MARICOPA INDIAN COMMUNITY

10005 East Osborn Road / Scottsdale, Arizona 85256-9722 / Phone (480) 362-7400 / Fax (480) 362-7593

April 11, 2008

Chairperson James M. Cavanaugh
Regional Council
Maricopa County Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

Dear Chairperson Cavanaugh,

The Salt River Pima-Maricopa Indian Community (SRPMIC) has appreciated the opportunity to participate in the MAG process in regards to the Goldfield Ranch 208 Application. SRPMIC has a long history of working successfully with various local governments including the cities of Scottsdale, Tempe, Mesa and Phoenix on a variety of complex issues. As with all governments, our number one priority is to protect the health and well being of our citizens and eco-system. Therefore, at this time we must continue to object to The Preserve at Goldfield Ranch 208 application for the reasons below.

QUICK TIMELINE

Thursday, March 20th the MAG Water Quality Advisory Committee voted 9-7 to approve the Preserve at Goldfield Ranch 208 Application.

Wednesday, April 9th the MAG Management Committee voted 15-13 to approve the Preserve at Goldfield Ranch 208 Application.

Salt River Pima Maricopa Indian Community Concerns

This area of proposed development, unlike most 208 applications, has a very unique and delicate ecosystem. The last few miles of the Verde River flows within SRPMIC boundaries and the Verde River's confluences with the Salt River are also located within the Community.

SRPMIC still has a range of concerns with the Goldfield Ranch application: water quality impacts to the northeast corner of our Community, overall water supply safety and the protection of the Desert Nesting Bald Eagle which was recently placed back on the Endangered Species List to list a few.

SCIENCE:

One area of key concern is the variance in the science between the Developer, the Community and Salt River Project (SRP). SRPMIC still does not have adequate data from the developer to substantiate the extent and integrity of the confining clay layer. The cross-sections provided in the Goldfield 208 Application identifies 8 wells with only 5 wells penetrating through the clay layer. This does not provide necessary data to verify the extent or integrity of the clay layer, which may impact the Verde River. Information such as this is critical, as without substantiated evidence of clay layer confining the aquifer proposed for use by Goldfield, water quality and quantity are at risk.

SRP, who has a great deal of experience in the area, disagrees with the developer's analysis of the clay layer. SRP's analysis concurs with what our internal and external experts have stated, that the effluent usage plan is not adequate.

Along, with the continued concern about clay layer, the Community is gravely concerned about the future health of its drinking wells, permanent riparian habitat and the continued well-being of Endangered Desert Nesting Bald. The treated wastewater contaminants could have a detrimental impact water use for human consumption and on the fish that eagles depend on for forage.

The Community contends a fundamental part of the 208 planning process is to address water quality issues. The developer has not conducted the necessary studies that would address this essential part of the 208 planning process.

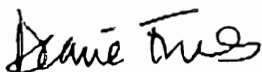
The inadequacies of the Goldfield Ranch Plan must be raised: there are inadequate protections for a system failure including lack of proper emergency plans and back-up plans that address cost.

"NOT IN MY BACKYARD."

The Salt River Pima Maricopa Indian Community's history represents a commitment to work through challenges with our government neighbors and private development. Representatives from Scottsdale, Tempe, Mesa and Phoenix can attest to several of our cooperative ventures. Again, like others we have a fiduciary responsibility to protect our people who utilize our lands and wells. Currently, these wells are in the direct flow pattern of the proposed 208 recharge area as is our permanent habitat preserve, which includes nesting sites for the endangered Desert Bald Eagles causing us to continue to oppose this application until the Community's concerns can be addressed in a scientifically sound manner that ensures the safety of our citizens and eco-system.

With great appreciation for the task you have at hand, we ask that you reject this proposal.

Sincerely,



Diane Enos
President



Maricopa County

Environmental Services

Water and Waste Management Division

APR 10 2008

1001 N. Central Ave., Suite 150
Phoenix, AZ 85004
Phone: (602) 506-6666
Fax: (602) 506-6925
TDD: 602 506 6704
www.maricopa.gov/envsvc

April 7, 2008

Kathy Haines, President
Goldfield Concerned Citizens Association
12140 N. Sin Vacas Trail
Ft. McDowell, AZ 85264

Dear Ms. Haines:

I received your letter dated March 20, 2008, regarding the Amendment to the MAG 208 Water Quality Management Plan to incorporate the proposed water reclamation facility for the Preserve at Goldfield Ranch.

In your section 1, you state that the application fails to consider all relevant adjacent parcels. The application envisions phased construction of a 400,000 gallon per day capacity wastewater treatment plant. Flows from the developed parcels are estimated at 354,000 gallons per day, and estimated flows from adjacent parcels to the east are 12,000 gallons per day. As you mention, the surrounding land is rural in nature and zoned for minimum lot sizes of 4.36 acres; the large lot size would make connection to the proposed treatment plant infeasible when compared to the cost of onsite wastewater treatment options.

If the owner of any parcel outside the planned Goldfield Ranch service area desires to rezone to a density that requires offsite sewage treatment, the owner could explore the feasibility of connecting to the treatment plant. As stated in the application, "at the expense of the private landowner, the wastewater collection system may be able to be expanded to provide service outside the planned service area." However, your statement "that Maricopa County has already determined that it is feasible to serve all of the south side of the Beeline Highway with this wastewater plant" is incorrect. Although the 1995 development master plan (DMP) designated 18 acres in the area for potential commercial zoning, the land is currently zoned for rural development. During the subject 208 Amendment process, no landowner in the area has stated a desire to be included in the small wastewater plant service area.

Section 2 of your letter concerns the requirement to determine reactions of nearby landowners to the proposed facility. This question in Table 4-53, Small Plant Criteria, is under the heading "Will the proposed plant adversely impact existing or approved nearby land uses?" The Fort McDowell Yavapai Nation (Nation) owns the land immediately to the west of the proposed water reclamation facility. The developer has records of numerous meetings and correspondence with the Nation and other interested groups during the process of preparing and presenting the 208 Plan Amendment. Included in the file is a sign in sheet for a December 2006 meeting regarding the DMP for the Preserve

at Goldfield Ranch, where the Maricopa County Environmental Services Department explained the MAG 208 plan amendment requirements for the wastewater treatment facility. You and Randy Haines signed in at that meeting. The County also has a record of meetings and correspondence between the developer and Goldfield Ranch Homeowners' Association that include questions and answers regarding wastewater treatment plans for the project. The technical issues you mention in section 2 of your letter were addressed by the developer in their 208 Plan Amendment.

Section 3 of your letter contends that the project will discharge into the waters of the United States. This is incorrect. The application states that the wastewater plant will treat effluent to ADEQ A+ standards, with effluent used for irrigation to the maximum extent feasible. Effluent will also be used for recharge into the aquifer. Maricopa County requires demonstration of technical feasibility of reuse/recharge of effluent prior to design approval for a wastewater treatment plant. The 208 Amendment does not permit direct discharge to surface water.

Thank you for commenting on the MAG 208 Water Quality Management Plan to incorporate the proposed water reclamation facility for the Preserve at Goldfield Ranch into the MAG 208 Area wide Water Quality Management Plan. You have many concerns that may be appropriate to address elsewhere in the development review process. However, based on the above analysis of the information provided by you and the applicant, the Department has determined that the MAG 208 Amendment is acceptable and complies with the MAG 208 Area wide Water Quality Management Plan.

Please note that the Department has not reviewed, nor approved, the design of the facilities as part of the 208 Small Projects Review. Any technical issues that remain will need to be resolved during the design phase of the project. Approval to Construct (ATC) and Approval of Construction (AOC) must be obtained from this Department prior to start of construction and startup, respectively, of all treatment, discharge, recharge, and reuse facilities, including all conveyance facilities and final end user facilities.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin S. Chadwick".

Kevin Chadwick, P.E.
Division Manager

cc: Julie Hoffman, MAG
File



SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY

10,005 E. OSBORN RD./SCOTTSDALE, AZ 85256

PHONE (480) 362-7400

BACKGROUND

The Salt River Pima-Maricopa Indian Community (SRPMIC) was not included in the initial phase of the developer's application process. The SRPMIC appreciates the opportunity to understand, research and to engage in the MAG 208 process.

On March 20, 2008 the MAG Water Quality Advisory Committee voted 9-7 to approve the Preserve at Goldfield Ranch 208 Application.

The area of development, unlike other 208 applications, has a very special and delicate ecosystem. The last few miles of the Verde River flows within SRPMIC boundaries, and the Verde River's confluence with the Salt River is also in the SRPMIC. We have concerns with water quality impacts to the northeast corner of our Community, as well as with the water supply. The Desert Nesting Bald Eagle was recently placed back on the Endangered Species List. We are gravely concerned about treated wastewater contaminants having detrimental impact on fish that eagles depend on for forage and water used for human consumption.

ISSUES

1. The SRPMIC still does not have adequate data from the developer to substantiate the extent and integrity of the confining clay layer. The cross sections provided in the Goldfield 208 Application identifies 8 wells with only 5 wells penetrating through the clay layer. This does not provide necessary data to verify the extent or integrity of the clay layer, which may impact the Verde River. This information is critical, as without substantiated evidence of a clay layer confining the aquifer proposed for use by Goldfield, water quality and quantity are at risk. Specifically, the Verde River and the Fountain Hills Subbasin that the SRPMIC shares with Goldfield and other communities may be impacted. There are currently only 3 wells on the Goldfield property. The developer used logs from other wells off their property to develop their cross sections.

2. The SRPMIC is concerned with the unproven track record and the uncertain future of the company chosen to operate and manage the facility. The operation and management of the facility itself is to be done by the "A Quality Water Company" which does not currently provide similar services to any other developments in the Metropolitan Phoenix area. Their home and business addresses, listed as being in Williams, AZ., are the same. In addition, the company is not a perpetual corporation; their latest date to dissolve is 12/31/2010. This raises serious concerns with the company's ability to timely respond to emergency situations.

3. There is no back up plan outlined in the event of a disaster or emergency. The most recent concerns with local municipal reaction to drinking water contamination are a serious issue, which must be addressed. Also, costs associated with a back-up plan have not been identified.

4. The Goldfield Ranch 208 Application cannot be compared to other MAG 208 Applications that were previously approved. Unlike the other applications which were confined and managed by municipalities and thus had no opposition, the development area at issue has a special and delicate ecosystem. The Quintero Golf and Country Club Waste Water Treatment Plan (WWTP) are within the City of Peoria as is the Estates at Lakeside WWTP. The City planned to decommission the plant when a regional solution is available). The 208 application was supported by the City. The Scorpion Bay WWTP is also within the City of Peoria and also supported by the city. The Desert Oasis WWTP was intended to be decommissioned when the City of Surprise extended its infrastructure to pick up the development. It would be owned and operated by the City of Surprise. The Ruth Fisher School WWTP, within the City of Surprise and 8 miles from the nearest city, is an expansion/replacement of an existing small plant. They also added A+ recharge. The location and sponsorship by a major city and the future decommissioning are among the major differences between other 208 applications and the Goldfield application.

The Preserve

GOLDFIELD RANCH

MAG 208 Water Quality Management Plan
Small Plant Review and Approval
for

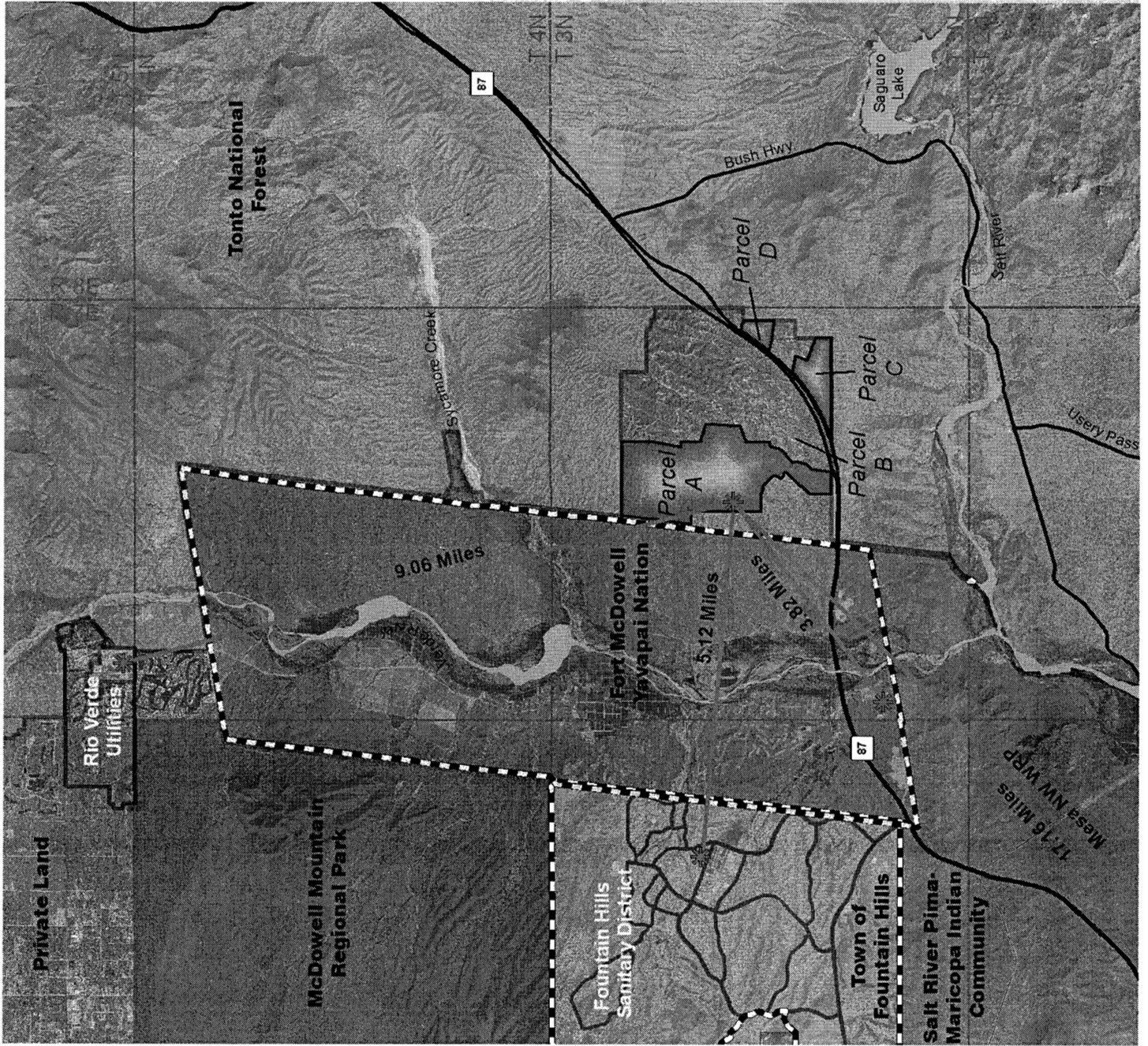
The Preserve at Goldfield Ranch Water Reclamation Facility

April 9, 2008



//// WORKING TOGETHER FOR A BETTER TOMORROW

Proximity Map

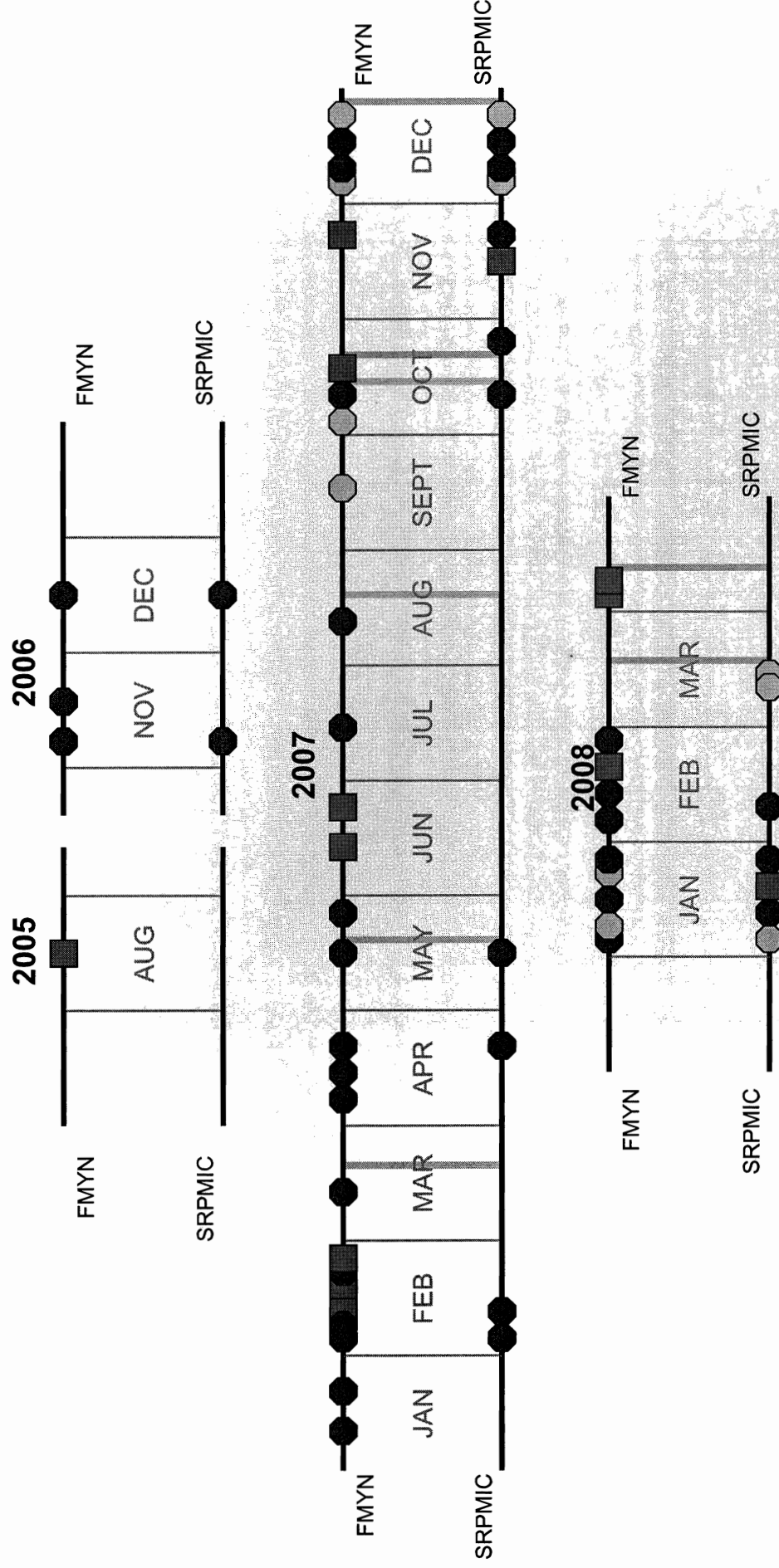


DMP Comparison Chart

	1995	2007
Density	2,032 du 0.92 du/ac	1,000 du 0.5 du/ac
Commercial	90 acres	None
Golf Course	190 acres	None
Water Budget	2,127 acre-feet per year	732 acre-feet per year
Traffic	34,150 daily trips	6,912 daily trips

Responsible development

Timeline of Tribal Communication



■ Meeting ● Correspondence prepared by Goldfield ○ Correspondence received by Goldfield

WQAC meeting

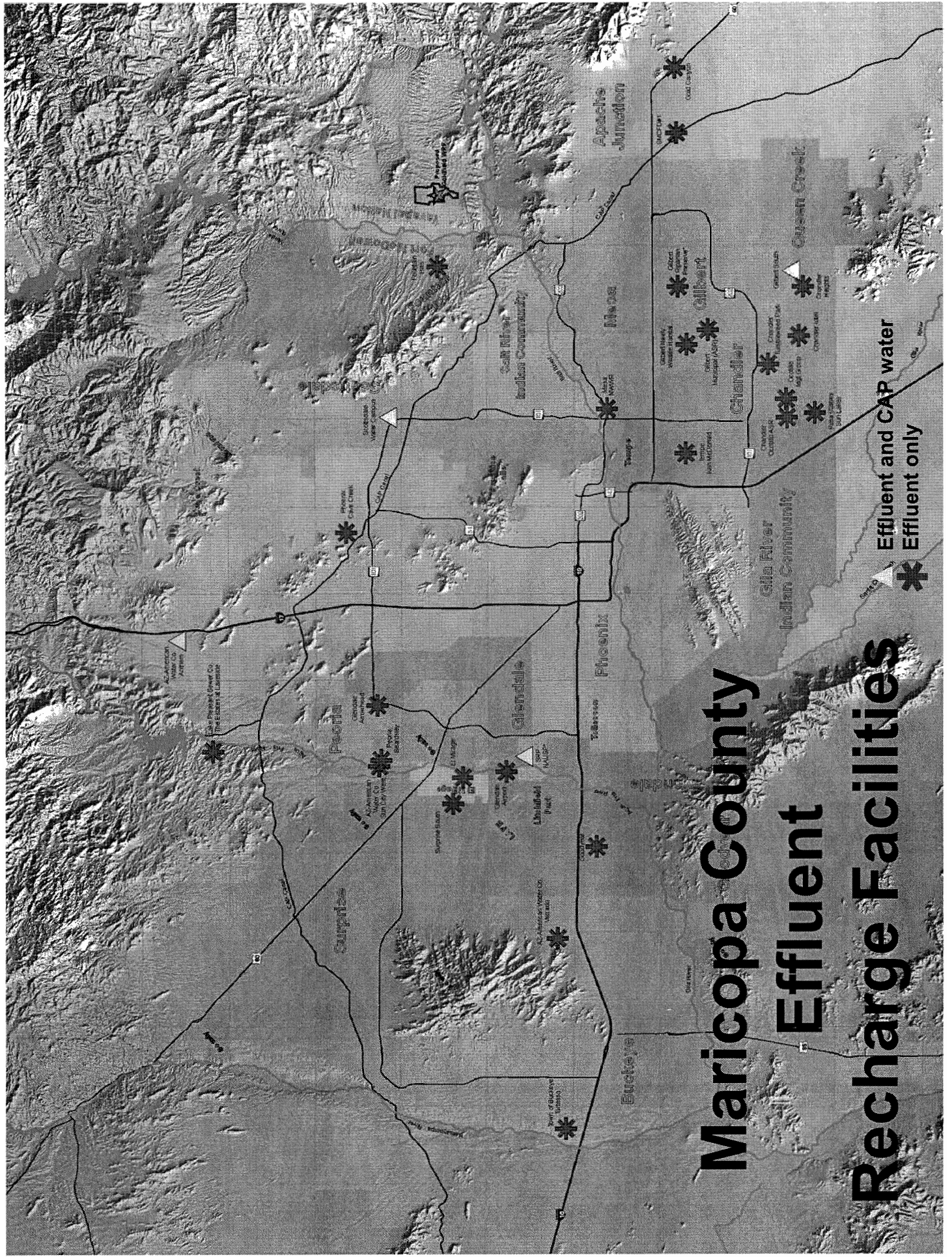
MAG Management Committee meeting

Draft application to Maricopa County/MAG review

Key Concern: Water Quality

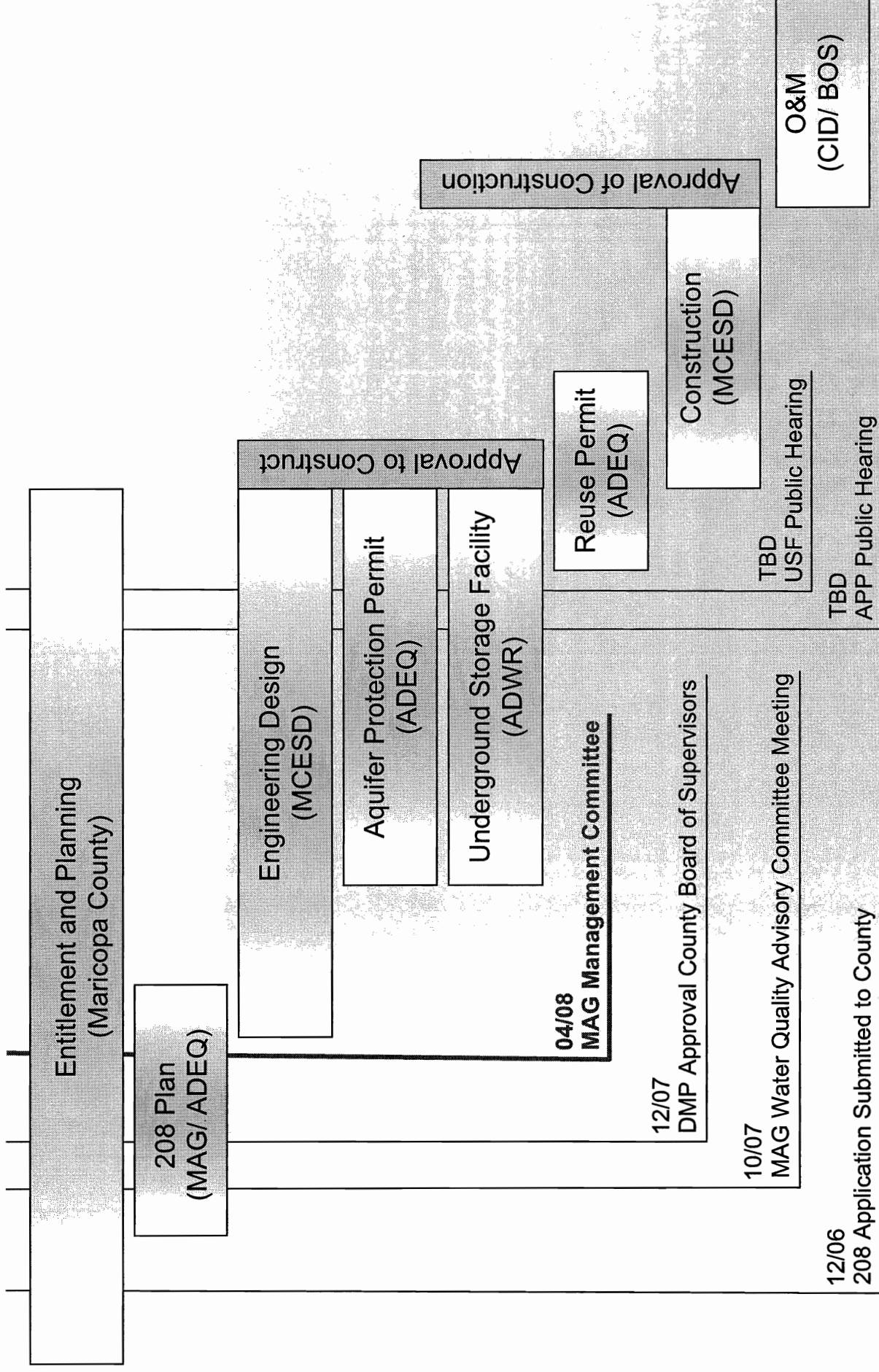
- ADEQ requires:
 - Effluent treated to A+ standards
(AAC R18-11-303)
 - Water quality meets drinking water standards
(Aquifer water quality standards, AAC R18-11-405)
 - Best available demonstrated control technology
(AAC R18-9-B204)

Effluent quality and design requirements are the same for every wastewater treatment plant across the state



Maricopa County Effluent Recharge Facilities

WRF Approval Process



208 Small Plant Criteria for Technical Sufficiency

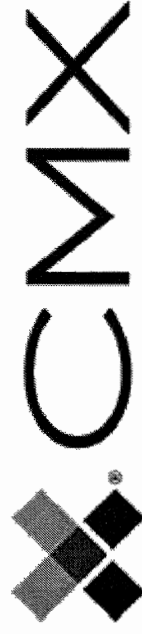
Section 4.5.2(2) – Outside of Municipal Planning Area:

To be approved for construction, a small wastewater treatment plant (2.0 MGD ultimate capacity or less) not otherwise mentioned in the MAG 208 Plan and located outside a Municipal Small Plant Planning Area must:

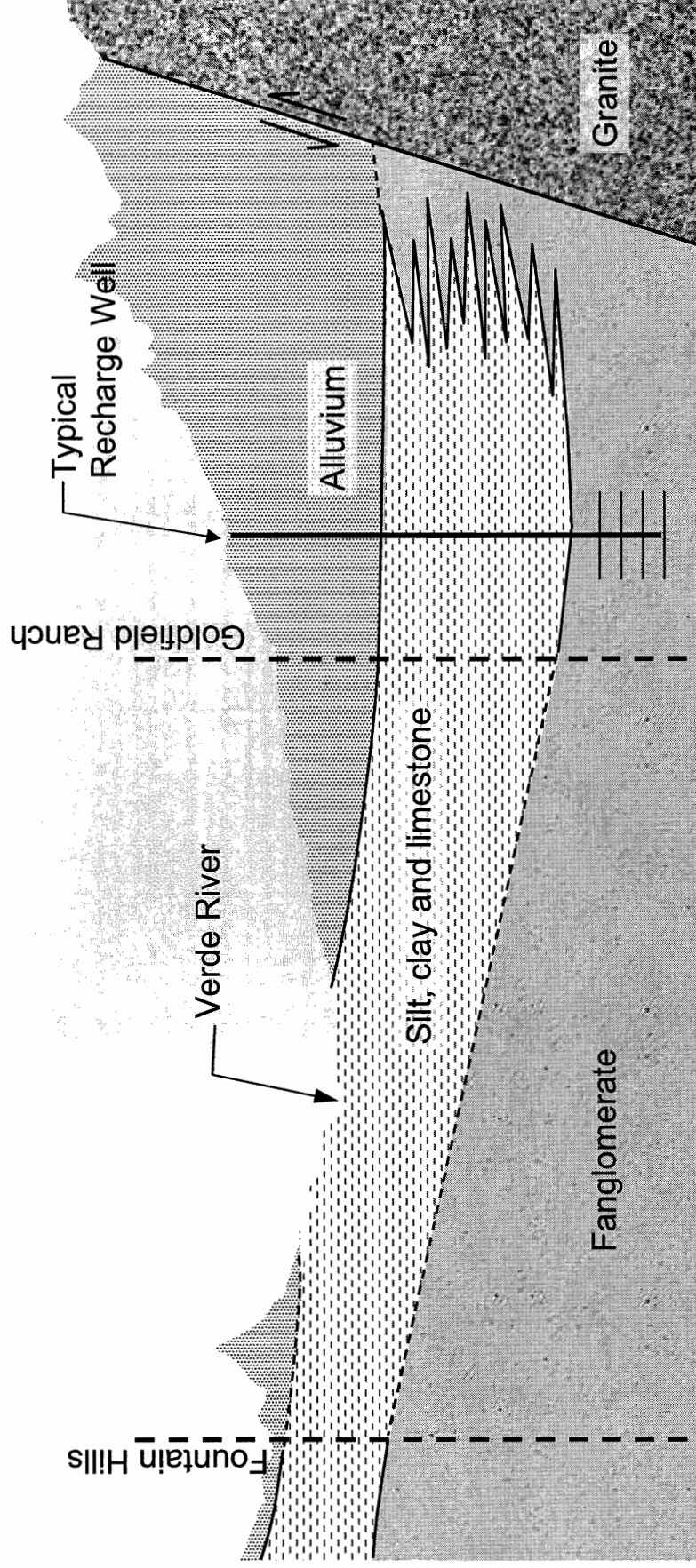
- 1. Have the review and comment of any municipality whose Small Plant Planning Area is within three miles of the proposed plant location or service area;*
- 2. Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants;*
- 3. Be consistent with State and County regulations and other requirements;*
- 4. Be otherwise consistent with the MAG 208 Plan; and,*
- 5. Be evaluated and approved, or modified by Maricopa County Environmental Services Department (MCESD).*

The Preserve at

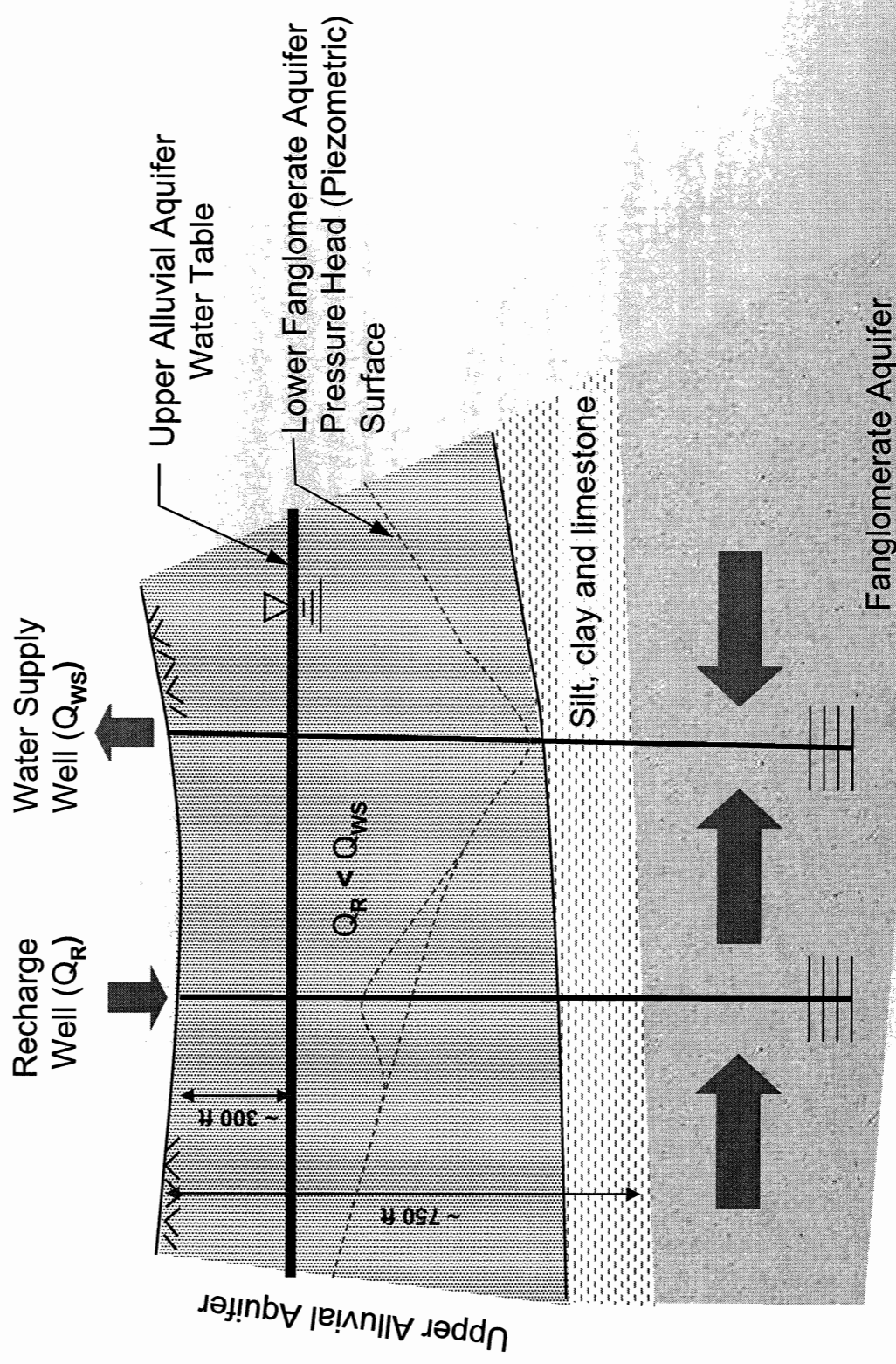
GOLDFIELD RANCH



Hydrogeologic Cross-Section



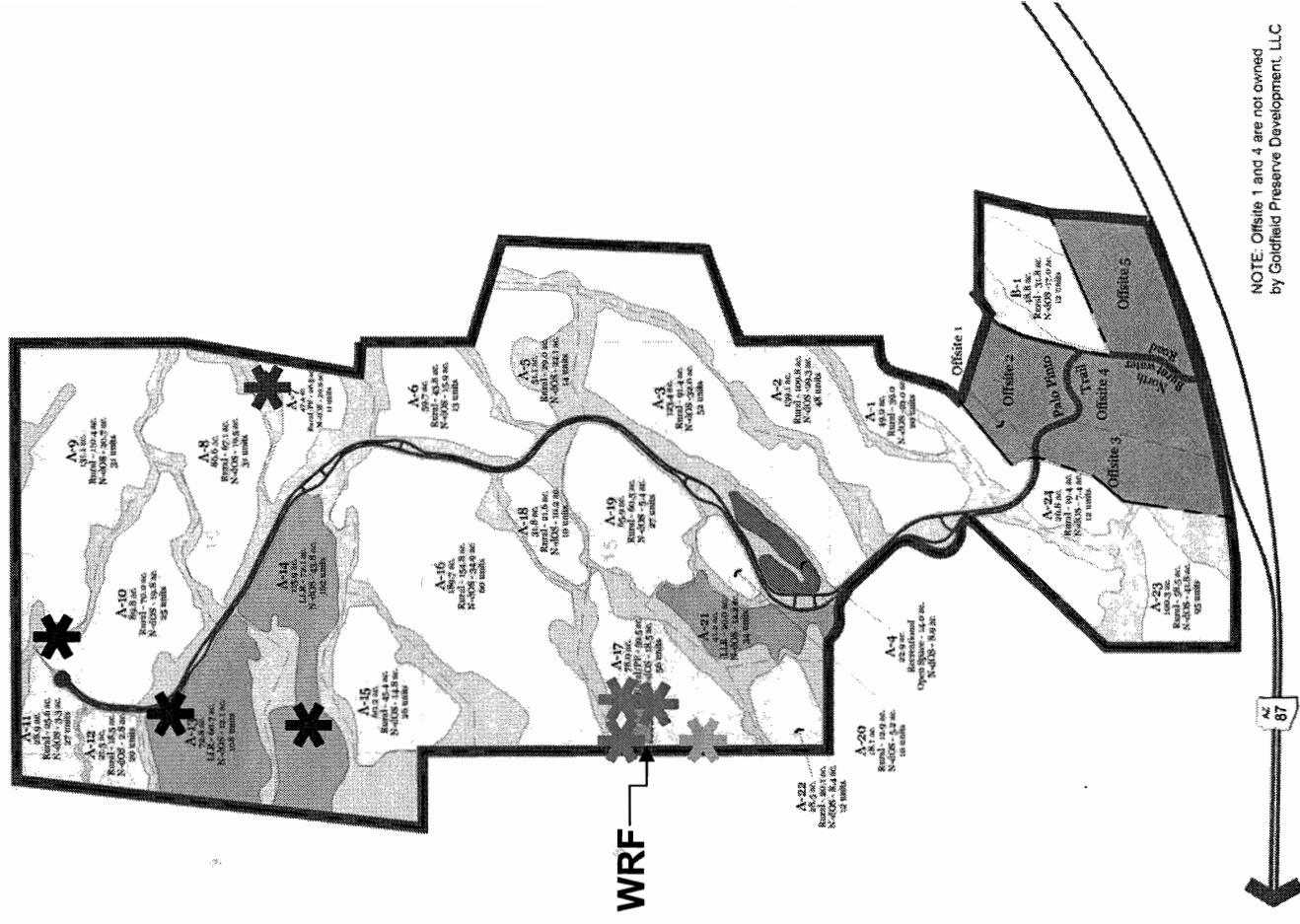
Recharge and Production Aquifer Cross-Section



Well Locations

- Separation between recharge wells and water supply wells is approximately 1 mile
- A monitoring well will be installed down-gradient of the recharge wells

- ✱ Groundwater Well Site
- ✱ Monitoring Well Site
- ✱ Recharge Well Site
- ✱ Water Campus



Groundwater Management Act

Safe Yield by 2025

[A] groundwater management goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area. ARS §45-561(12).

*Responsible development
dictates recharge*

Tribal Comment and Response

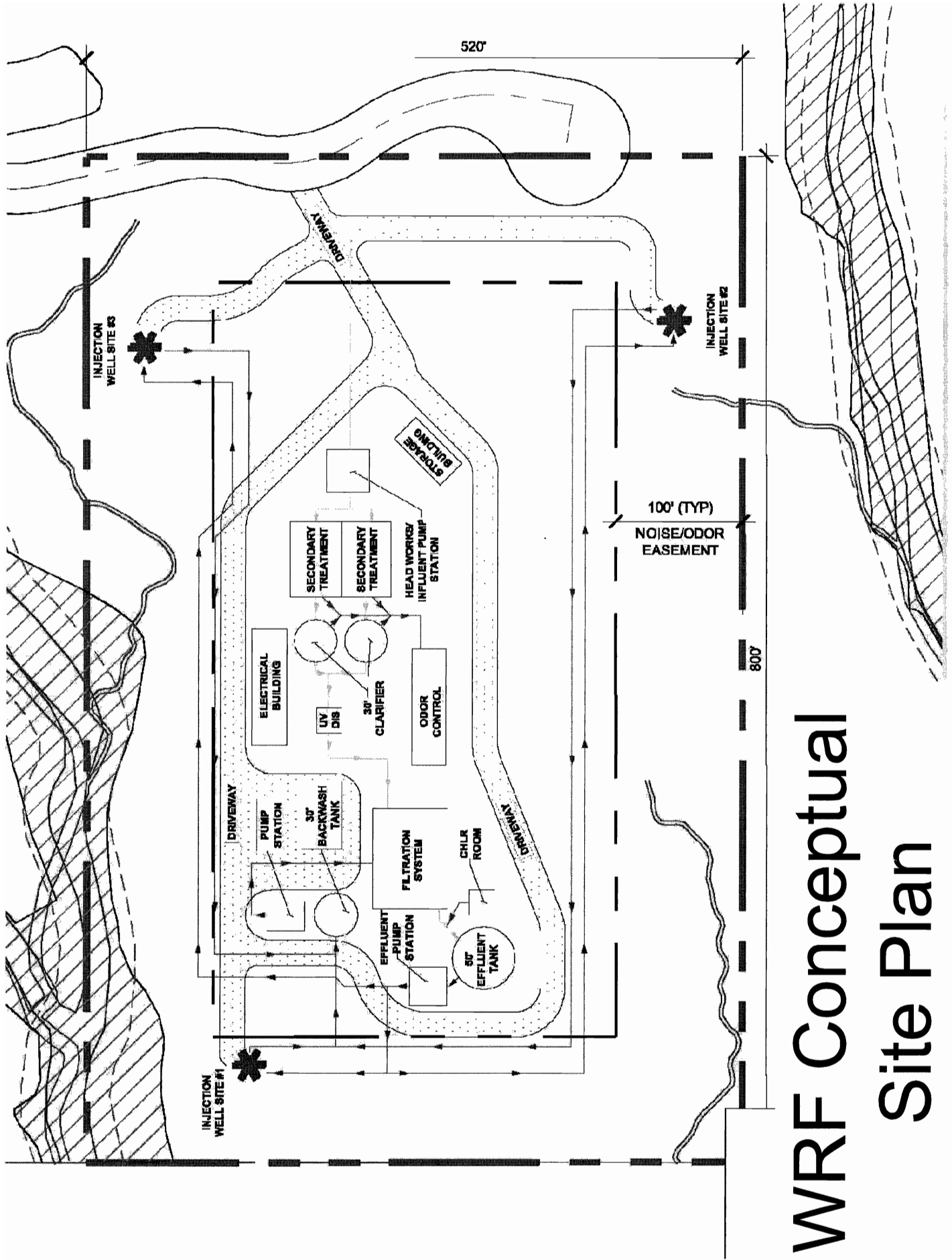
- Comment: Provide details of proposed treatment and effluent disposal
- Response:
 - Effluent quality and design requirements are the same for every wastewater treatment plant across the state
 - Regulated by ADEQ, ADWR and MCESD
 - Public process for APP and USF permitting

Tribal Comment and Response

- Comment: The following are missing...
 - Plant layout
 - Unit processes
 - Capital and O&M costs
 - Design criteria
 - Estimated impacts on adjacent properties
 - Demonstrate ability to satisfy permit requirements
- Response:
 - Conceptual site plan provided depicts unit processes
 - Costs provided
 - Design criteria regulated by ADEQ
 - No impact on adjacent properties (closed facility)
 - If cannot satisfy permit requirements, development cannot proceed

Tribal Comment and Response

- Comment: Commit to specific treatment plan to identify noise, odor potential
- Response:
 - Conceptual site plan shows 100' setbacks
 - Nearest adjacent neighbors are within The Preserve development
 - Full noise, odor and aesthetic controls means:
 - Noise does not exceed 50 decibels at property boundary
 - Normal conversation = 60 decibels
 - All odor-producing components of the facility are fully enclosed (CLOSED SYSTEM)
 - Odor control devices are installed on all vents
 - Fencing aesthetically matched to surrounding area (AAC R18-9-B201)



WRF Conceptual Site Plan

Tribal Comment and Response

- Comment: Identify plan for sludge processing
- Response:
 - Alternatives for sludge treatment include:
 - Haul undigested sludge
 - Sludge digesting (equipped with aeration)
 - Sludge thickening (belt press)
 - Regulated by ADEQ under the Aquifer Protection Permit
(AAC R18-9-1001 et seq.)

Tribal Comment and Response

- Comment: Avoid impacts to surface (Verde River) and groundwater
- Response:
 - ADEQ requires:
 - Effluent treated to A+ standards
(AAC R18-11-303)
 - Water quality meets drinking water standards
(Aquifer water quality standards, AAC R18-11-405)
 - Best available demonstrated control technology
(AAC R18-9-B204)
 - Effluent quality and design requirements are the same for every wastewater treatment plant across the state

*No discharge to
Verde River*

Tribal Comment and Response

- Comment: Groundwater level decline will affect Community's water resources
- Response:
 - Issue does not pertain to the 208 Application
 - Regulated by ADWR under the Groundwater Management Act which precludes impacts to adjacent wells or users

*Key Concern:
Water Quantity*

Tribal Comment and Response

- **Comment:** Clarify resort/spa accounted for in Analysis of Assured Water Supply application
- **Response:**
 - Greatest potential water use included (with resort/spa indicated as 120 multi-family units)

Analysis of
Assured Water
Supply approved
June 12, 2007

Name of Subdivision: Goldfield Preserve						
December 21, 2008	SUBDIVISION DEMAND CALCULATOR					
Enter the AMA the subdivision is located in*: If you are not sure if your are located inside or outside of an AMA, contact the Office of Assured and Adequate Water Supply at (602) 771-8585.	PHX	* Enter PHX for Phoenix, TUC for Tucson, PIN for Pinal, PRE for Prescott or SCR for Santa Cruz.				
Enter the COUNTY the subdivision is located in:	MARICOPA	* Enter either APACHE, COCHISE, COCONINO, GILA, GRAHAM, GREENLEE LA PAZ, MARICOPA, MOHAVE, NAVALO, PIMA, PINAL, SANTA CRUZ, YAVAPAI, or YUMA.				
Residential Usage Category	PPHU	GPCD or per household/day	Demand/HU/YR (sf/y)	No. HU (Lots)	Residential Demand/Yr (sf/y)	
Single Family (int)	2.89	57.00	0.17	968.00	166.60	
Multi-Family (int)	2.89	57.00	0.17	120.00	20.81	
Single Family Landscape (ext)	1.00	178.00	0.20	\$63.00	193.01	
Multi-Family Landscape (ext)	1.00	77.00	0.09	120.00	10.35	
Single family Demand/HU/YR			1.35			
Multi-family Demand/HU/YR			0.28			
	Square Feet	Acres	Demand Factor (sf/y)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (sf/y)	
Average Lot Size (sq. ft)**	8750.00	0.20				
TMP Model Lot Size (sq. ft)	7,500 - 10,000	0.17 - 0.23				
Large Lot adjustment	0.00	0.00				
1/2 bowlwater use	0.00	0.00	1.50	258.00	0.00	
1/2 turf	0.00	0.00	4.50	258.00	0.00	

Tribal Comment and Response

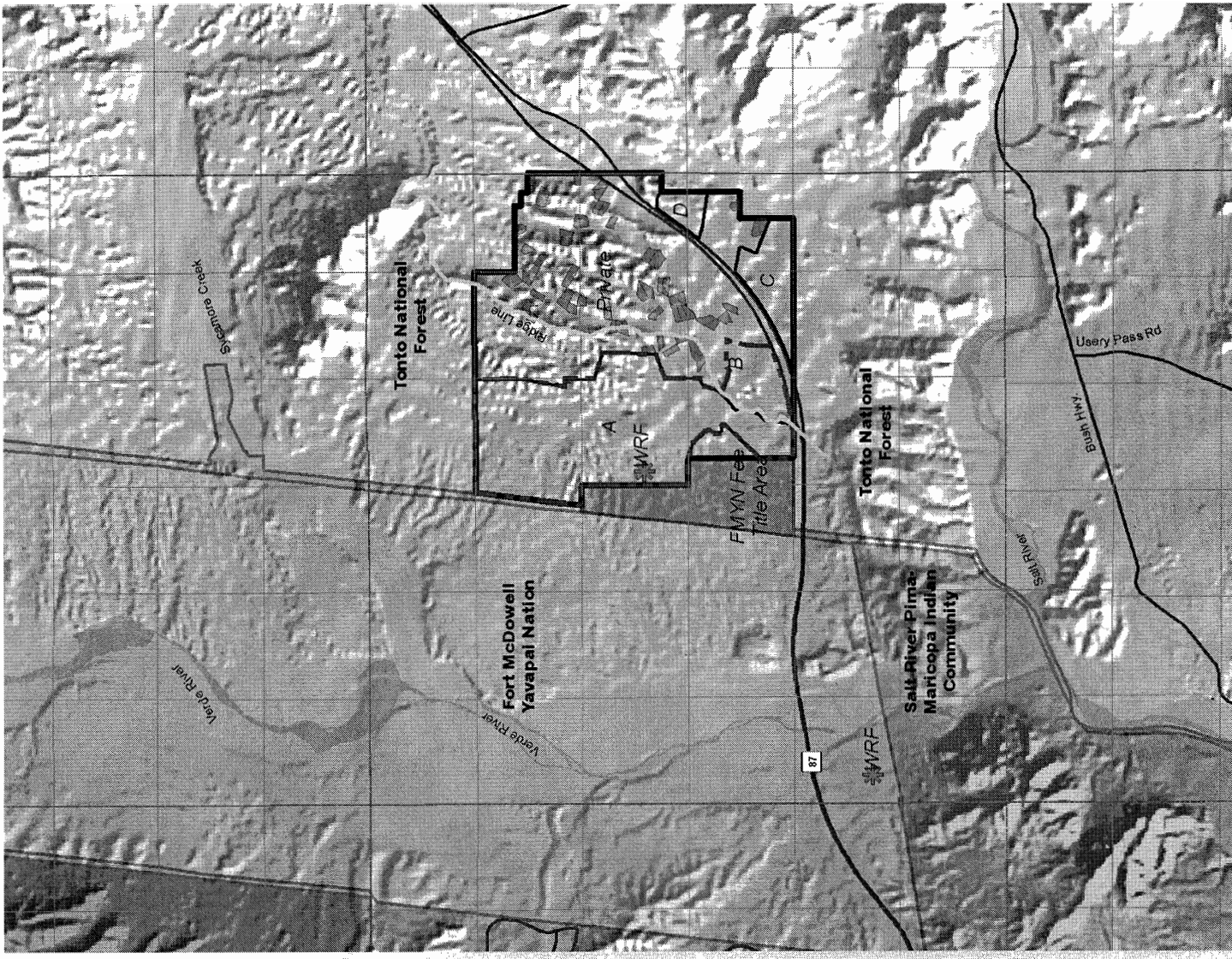
- Comment: Provide for proposed commercial customers
- Response:
 - Wastewater flow from potential restaurant less than 1 or 2 percent of total flow to WRF
 - Grease trap anticipated as part of WRF design
 - Grease trap anticipated at restaurant
 - Wastewater flow from potential resort/spa including restaurant 13 percent of total flow to WRF
 - Removal of detergents part of facility design
 - Anticipated influent water quality consistent with MCESD comments due to low flow fixtures

Tribal Comment and Response

- Comment: Provide emergency plan and redundancy
- Response:
 - Contingency plan required under Aquifer Protection Permit (AAC R18-9-A204)
 - Stormwater management (SWPPP) and Best Management Practices, such as erosion control, dust control, sediment control and good housekeeping/ materials management
 - Monitoring and sampling plan
 - Reporting requirements
 - Catastrophic failure contained onsite
 - Redundancy factored into engineering design
 - Design operating capacity will be two times the average day flow
 - Redundant recharge wells
 - Standby generator

Tribal Comment and Response

- Comment: Reduce need for septic
- Response:
 - Parcels C&D proposed for 1.5+ acre lots
 - Distance, topography, jurisdictional waters and State Route 87 and State Route 87 constrain the feasibility of serving these parcels



Tribal Comment and Response

- Comment: Facility financing
- Response:
 - Construction by developer
 - Financial capacity demonstrated at \$4.8M or ~\$12/gallon
 - Operation & Maintenance by CID governed by the Maricopa County Board of Supervisors
 - Financial assurance letter, Consolidated Financial Report and independent auditor's assessment of report provided

Comparison of Financial Documentation in Approved 208 Plan Amendments

		Financial Statement Provided	Financial Backing by Municipality	WWTP Construction Funding	WWTP Operation Funding
2002	Quintero Golf and Country Club	No – Text statement indicating developer funding construction	Yes	Developer	City of Peoria (user fees)
2003	Desert Oasis	Yes, but not for entity funding WWTP – Equity Assets \$20,594,000	No	Developer	Arizona-American Water Company (user fees collected by City of Surprise)
2004	Ruth Fisher School WWTP	No – Letter from school indicating sufficient capital	No	Developer	Contracted Certified Operator
2006	Estates at Lakeside	Yes – Equity Assets \$100,000	Yes	Developer	City of Peoria (user fees)
2007	Scorpion Bay WWTP	Yes – Letter from M&I Bank funding 80% of construction	No	Developer	Owner (user fees)
2008	Preserve at Goldfield Ranch WRF	Yes – Equity Assets \$ 4,862,255	No	Developer	Contracted Certified Operator (user fees)

Comparison of Operation & Maintenance Costs in Approved 208 Plan Amendments

	MAG 208 Plan	WRF Capacity (MGD)	Annual Operation & Maintenance Cost	Cost per gallon
2002	Quintero Golf and Country Club	0.15	\$210 (cited in report as \$1.40/1,000 gallons)	\$0.0014
2003	Desert Oasis	0.35	Not Provided	Unknown
2004	Ruth Fisher School WWTP	0.042	\$93,260	\$0.0061
2006	Estates at Lakeside	0.12	Not Provided	Unknown
2007	Scorpion Bay WWTP	0.035	\$121,500 at Year 5 (buildout)	\$0.0095
2008	Preserve at Goldfield Ranch WRF	0.40	\$250,000-\$300,000	\$0.0017-\$0.0021
Note: The impact of different treatment technologies, location, terrain and presence of existing facilities are not factored into this comparison.				

Tribal Comment and Response

- Comment: No letter provided to FMYN to determine if we will adversely affect the operation or financial structure of their existing facility as a neighboring jurisdiction
- Response:
 - Letter and Application provided to FMYN on May 14, 2007
 - FMYN previously stated there was no desire to provide wastewater service to Goldfield
 - Connection to existing FMYN facility infeasible due to: distance, topography, land ownership, existing State Route 87 and Verde River

Tribal Comment and Response

- Comment: Groundwater mounding and biological clogging
- Response:
 - Mounding
 - Premise of USF permit is demonstration of no unreasonable harm
 - USF permit application requires mounding analysis to estimate area of potential impact
 - Quarterly measurement and reporting of water levels including alert levels
 - Mounding is an issue when water levels approach within 10 to 20 feet of the ground surface
 - Depth to groundwater is approximately 300 feet
 - Recharge will be to lower, confined aquifer
 - Biological clogging
 - Minimized through filtration, disinfection and proper operation and maintenance (including backwash)
 - Common practice – Fountain Hills, Scottsdale, Chandler, et al. recharge

Tribal Comment and Response

- Comment: Provide detailed site plan
- Response:
 - Conceptual site plan provided
 - Engineered site plan to be provided at time of Aquifer Protection Permit and Underground Storage Facility permit applications

Tribal Comment and Response

- Comment: Apply for Underground Storage Facility and Aquifer Protection Permits
- Response:
 - Pre-application meetings held with ADEQ on March 25, 2008
 - Pre-application meeting scheduled with ADWR

Tribal Comment and Response

- Comment: Arizona Corporation Commission reports A Quality Water Company to be dissolved
- Response:
 - Arizona Corporation Commission filings will be rectified
 - County Improvement District (Maricopa County Board of Supervisors) has oversight

Tribal Comment and Response

- Comment: Provide additional hydrogeologic information
- Response:
 - Additional information will be provided when available pursuant to the Aquifer Protection Permit and the Underground Storage Facility permit

Tribal Comment and Response

- Comment: Stormwater and irrigation water may percolate into the upper/middle aquifer units and impact the Verde River
- Response:
 - Issue does not pertain to the 208 Application
 - Drainage and irrigation system designs provide for retention of stormwater flows
 - Reviewed and approved through Maricopa County

Tribal Comment and Response

- **Comment:** Report fails to assess if connection exists between Fountain Hills subbasin and the adjacent subbasins within the Phoenix AMA which may impact water quality
 - SRPMIC correspondence acknowledges “research based on information in ADWR reports, indicates that there is no connection.”
- **Response:**
 - Effluent to meet A+ water quality standards
 - Regulated under Aquifer Protection Permit
 - Required ongoing monitoring and reporting to safeguard down-gradient users

Tribal Comment and Response

- Comment: Desert nesting bald eagle may be impacted by micro-pharmaceuticals and other by-products in the Verde River
- Response:
 - Issue does not pertain to the 208 Application
 - No discharge to the Verde River
 - WRF will comply with all applicable regulations and standards

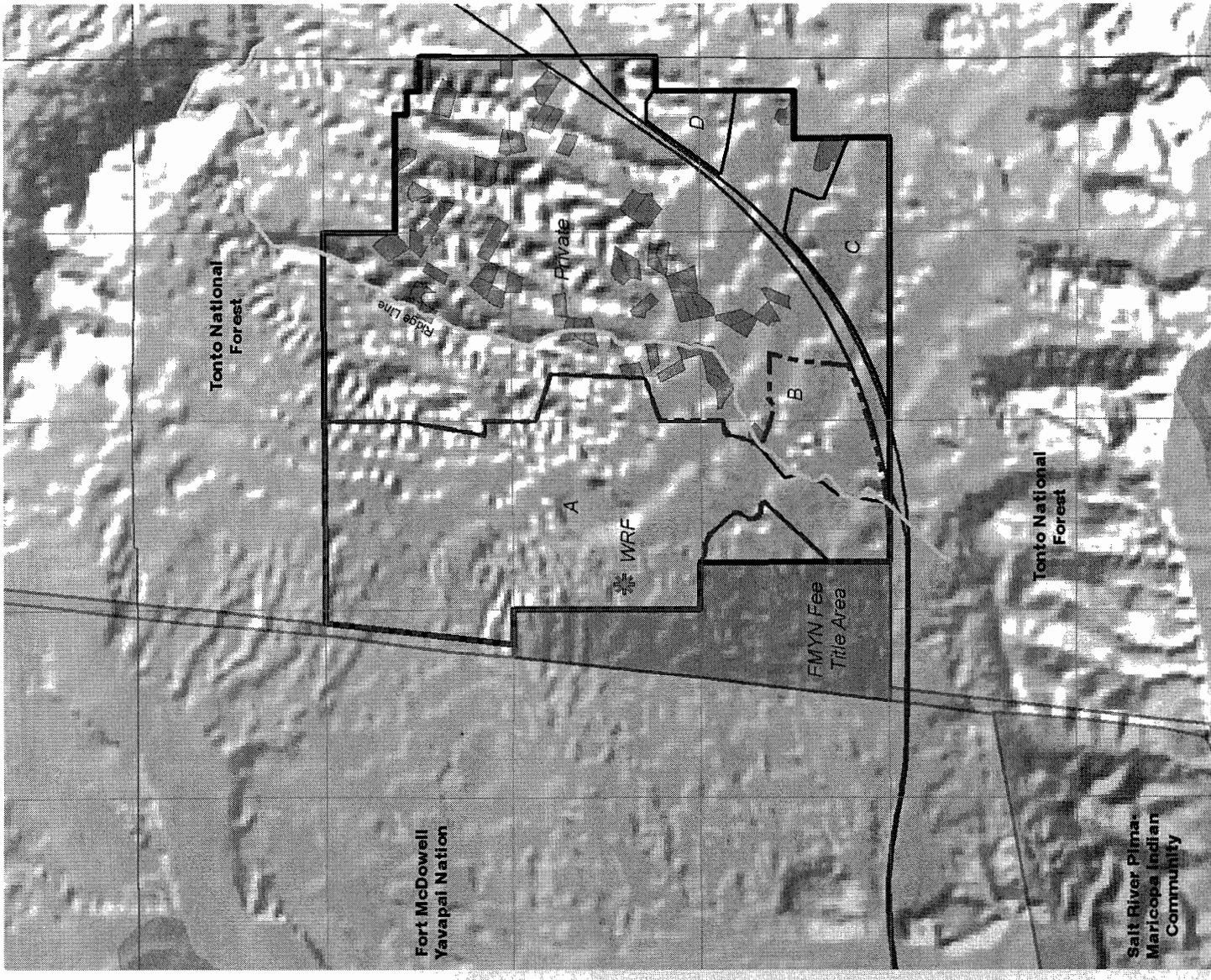
Tribal Comment and Response

- Comment: Clay layer does not confine the upper and lower aquifer and thins out at the edges
- Response:
 - Water quality concerns addressed irrespective
 - Well tests performed on site show aquifer is confined
 - Additional investigation is ongoing
 - Reference materials supporting presence of confining clay layer (playa deposit)

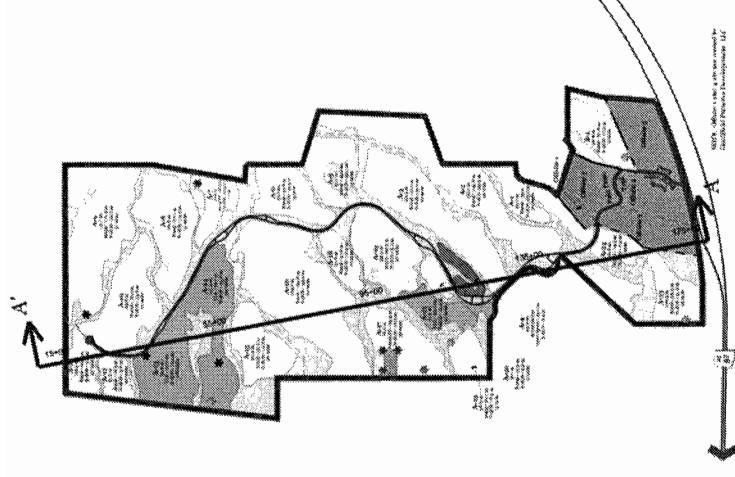
- Pope, Jr. C.W. 1974. *Geology of the Lower Verde River Valley, Maricopa County, Arizona*. M.S. thesis, Arizona State University (LD 179.151974P66)
- Skotnicki, S.J., E. M. Young, T.C. Goode and G.L. Bushner 2003. *Subsurface Geologic Investigation of Fountain Hills and Lower Verde River Valley, Maricopa County, Arizona*. Arizona Geological Survey Contributed Report CR-03-B.
- E.L. Montgomery & Associates, 2004. *Physical Availability Determination in Support of a Modification of Designation of Assured Water Supply for Chaparral City Water Company, Fountain Hills, Arizona*. Consultant's Report.

Wastewater Service to Goldfield Ranch

- Topographic/hydrologic constraints
- Limited access to parcels does not coincide with natural fall of land
- Existing 5 acre or larger lots to east operate on septic systems
- Economically infeasible – separate property owners



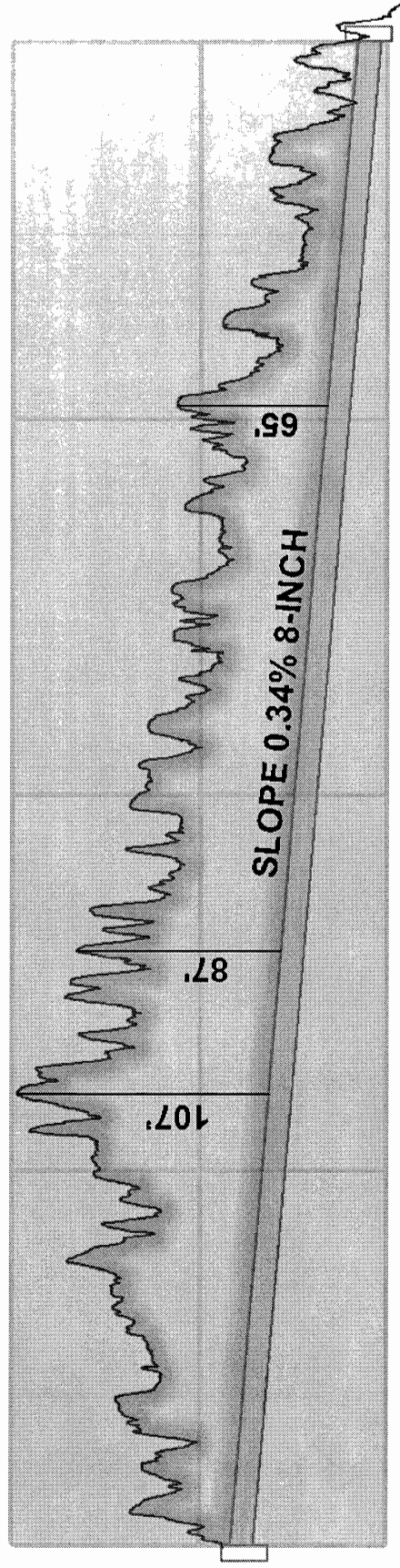
Topographic Constraints



A'

1680

1600



15+00

55+00

95+00

135+00

175+00

Target Effluent Concentrations

	Required Effluent Concentration (AAC Title 18, Chapters 9 and 11)	Design Goal Effluent Concentration
Total suspended solids (TSS), mg/L	30	10
Biological oxygen demand (BOD), mg/L	30	10
Total nitrogen, mg/L as N	10	5
Total phosphorus, mg/L as P	NA	1 (85% efficiency)

Requirements for Individual Aquifer Protection Permit

- Technical engineering design documents (AAC R18-9-A202)
- Financial capacity demonstration (AAC R18-9-A203)
- Contingency plan (AAC R18-9-A204)
- Alert levels, discharge limitations and acceptable quality levels (AAC R18-9-A205)
- Monitoring requirements (AAC R18-9-A206)
- Reporting requirements (AAC R18-9-A207)
- Compliance schedule (AAC R18-9-A208)
- Temporary cessation, closure and post-closure (AAC R18-9-A209)

Requirements for Underground Storage Facility Permit

- Technical capability to construct and operate the USF
- Financial capability demonstration
- Hydrological feasibility
- Project will not cause unreasonable harm
- Requires Aquifer Protection Permit
- A.R.S. § 45-811.01(C)

Requirements of Aquifer Protection Permit – Individual Permits

Slide 1 of 9

- Technical engineering design documents (AAC R18-9-A202)
- Financial capacity demonstration (AAC R18-9-A203)
- Contingency plan (AAC R18-9-A204)
- Alert levels, discharge limitations and acceptable quality levels (AAC R18-9-A205)
- Monitoring requirements (AAC R18-9-A206)
- Reporting requirements (AAC R18-9-A207)
- Compliance schedule (AAC R18-9-A208)
- Temporary cessation, closure and post-closure (AAC R18-9-A209)

APP Technical Requirements

(AAC R18-9-A202)

Slide 2 of 9

- Topographic map
- Facility site plan
- Facility design documents
- Proposed facility discharge activities
- Best Available Demonstrated Control Technology (BADCT)
- Contingency plan
- Hydrogeologic study – define discharge impact area
- Alert levels, discharge limitations, monitoring requirements, compliance schedules and temporary cessation
- Closure and post-closure plans
- Additional information as required by ADEQ

APP Financial Requirements

(AAC R18-9-A203)

Slide 3 of 9

- Financial capability for:
 - Construction
 - Operation and maintenance
 - Closure
 - Post-closure care
- Proof of financial assurance mechanism
- Permit amendment required if financial assurance changes
- Maintain recordkeeping

APP Contingency Plan Requirements

(AAC R18-9-A204)

Slide 4 of 9

- Contingency plan includes:
 - Actions to be taken if a discharge violation occurs
 - 24-hour emergency response measures
 - Name of emergency response coordinator
 - Contact persons
 - Procedures, personnel and equipment to mitigate unauthorized discharges

APP Alert Levels, Discharge Limitations and Acceptable Quality Levels

(AAC R18-9-A205)

Slide 5 of 9

- ADEQ prescribes:
 - Aquifer Water Quality Standards
 - Acceptable Quality Levels
 - Discharge limitations
 - Permit conditions
 - Alert levels
 - No endangerment to the public health or environment

APP Monitoring Requirements

(AAC R18-9-A206)

Slide 6 of 9

- Monitoring requirements to be determined by ADEQ
- In depth recordkeeping of each sample
- Monitoring record for each measurement made
- Maintain monitoring records for a minimum of 10 years

APP Reporting Requirements

(AAC R18-9-A207)

Slide 7 of 9

- Notification – within 5 days of any permit violation
- Written report to ADEQ – within 30 days
- Notification – within 5 days of bankruptcy or other federal or state environmental violations

APP Compliance Schedule Requirements

(AAC R18-9-A208)

Slide 8 of 9

- Compliance schedule considers:
 - Character and impact of discharge
 - Nature of construction
 - Number of persons potentially affected by discharge
 - Current state of treatment facility
 - Age of the facility

APP Temporary Cessation, Closure and Post-closure Requirements

(AAC R18-9-A209)

Slide 9 of 9

- Temporary Cessation
 - Notify ADEQ before cessation of 60 days or more
 - Conditions specified
- Closure
 - Notify ADEQ of intent to cease operations
 - Extensive closure plan
- Post-Closure
 - Detailed post-closure monitoring and maintenance plan

Requirements of Underground Storage Facility Permit

Slide 1 of 8

- USF Site and Facility Characteristics (Section III-B)
- Unreasonable Harm and Hydrologic Feasibility Analysis (Section III-C)
- Technical Capability (Section III-D)
- Financial Capability (Section III-E)
- Legal Access (Section III-F)

USF Site and Facility Characteristics

(Section III-B)

Slide 2 of 8

- USF site characteristics
 - Narrative description
 - Regional map
 - Location site map
- Facility characteristics
 - Description of wells
 - Description of recharge basins
 - Description of trenches
 - Description of managed and constructed in-channel recharge
 - Define multiple use project, if necessary
 - Description of source water and delivery system
 - Facility map
 - Description of design contingencies

USF Site and Facility Characteristics

(Section III-B) continued

Slide 3 of 8

- Geology
 - Geologic characteristics
 - Subsurface geology
 - Available geologic and well driller logs within 1 mile of the site
 - Geophysical logs and boring logs
- Hydrogeology
 - Demonstrate aquifer underlying the recharge site
 - Vertical and horizontal extent, thickness and lithology
 - Vadose zone vertical and horizontal extent, thickness, lithology and potential perching units
 - Current water levels
 - Water level changes – current and historic

USF Unreasonable Harm and Hydrologic Feasibility Analysis

(Section III-C)

Slide 4 of 8

- Maximum area of impact and mounding analysis
 - Calculate the maximum area of impact of a one-foot water level rise
 - Perform mounding analysis of the maximum water storage volume
 - Graph anticipated rate of groundwater rise
 - Map one-foot water level rise
 - Narrative supporting maximum area of impact and mounding analysis
- Land and water use inventory
 - Inventory wells within one mile
 - Inventory of structures, land uses, conditions and facilities within the maximum area of impact
- Water quality
 - Project required to comply with APP permit

USF Unreasonable Harm and Hydrologic Feasibility Analysis

(Section III-C) continued

Slide 5 of 8

- Unreasonable harm analysis
 - USF design, construction and operation
 - Demonstrate that the maximum amount of water that could be in storage at any one time will not cause unreasonable harm to the land or other water users
 - Water storage at the USF governed by an APP and will not cause or contribute to a violation of state aquifer water quality standards
- Hydrologic feasibility
 - Facility designed, maintained, monitored and operated for optimal recharge efficiency
 - No insurmountable barriers to recharge
 - Storage of the maximum amount of water that could be in storage at anyone time is hydraulically feasible

USF Unreasonable Harm and Hydrologic Feasibility Analysis

(Section III-C) continued

Slide 6 of 8

- Monitoring plan
 - Monitor wells
 - Measure water levels and water quality (both source water and groundwater)
 - Alert levels indicate need for a quick response to avoid the potential for unreasonable harm
 - Operational prohibition limit above alert level indicates that recharge activity must stop
 - Action plan for alert levels and operational prohibition limits for both water levels and water quality
 - Water quality monitoring plan
- Operation and maintenance plan

USF Technical Capability

(Section III-D)

Slide 7 of 8

- Demonstration of technical expertise:
 - Licenses, certifications and resumes for persons principally responsible for USF construction and operation

USF Financial Capability

(Section III-E)

Slide 8 of 8

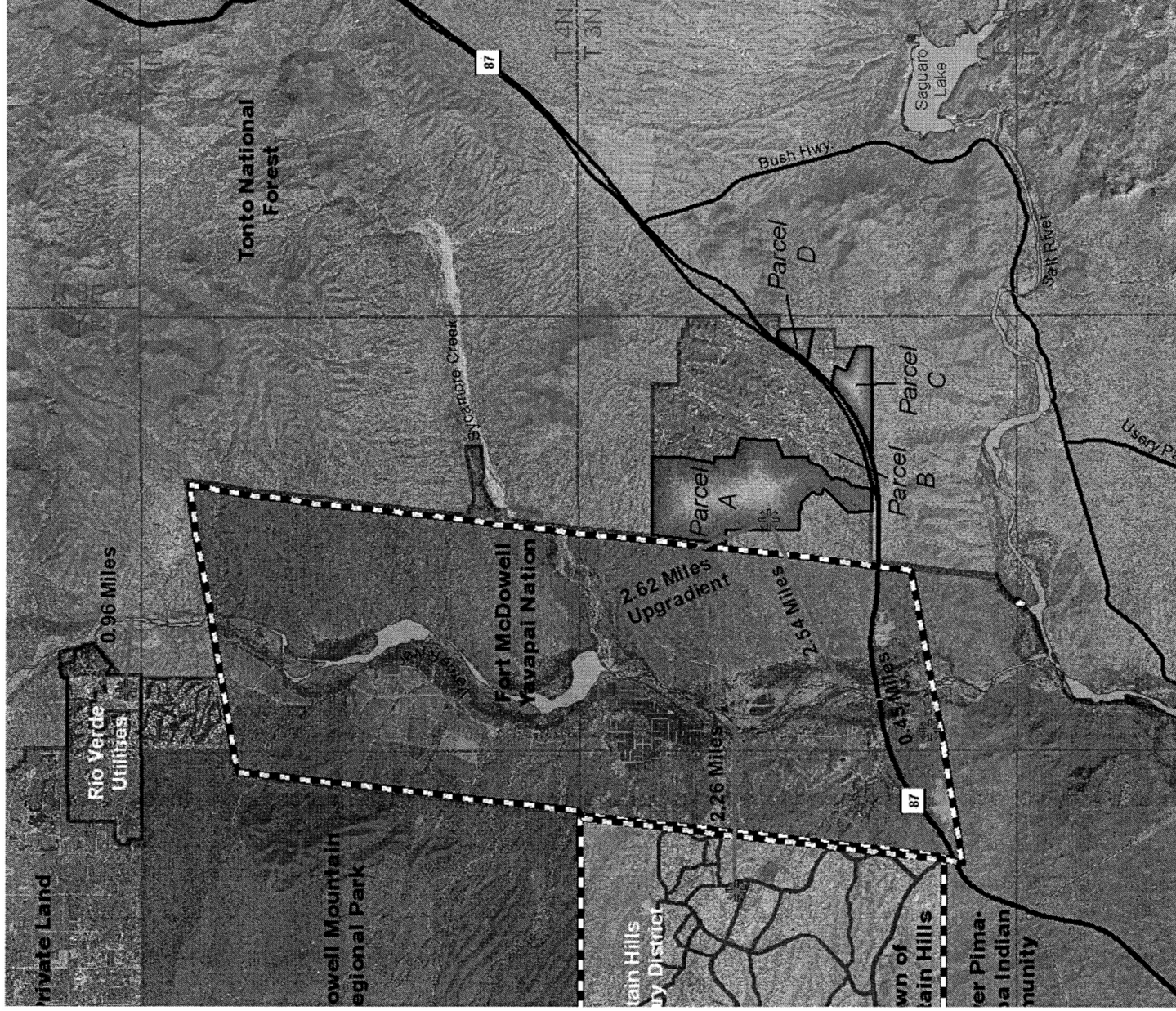
- Construction, operation, regulatory compliance and maintenance costs
- Certify adequate existing financial resources for construction and operation

USF Legal Access

(Section III-F)

- Legal access to the proposed site for construction and operation

Proximity to Waterways



Site Facilities



Groundwater Well Site



Monitoring Well Site



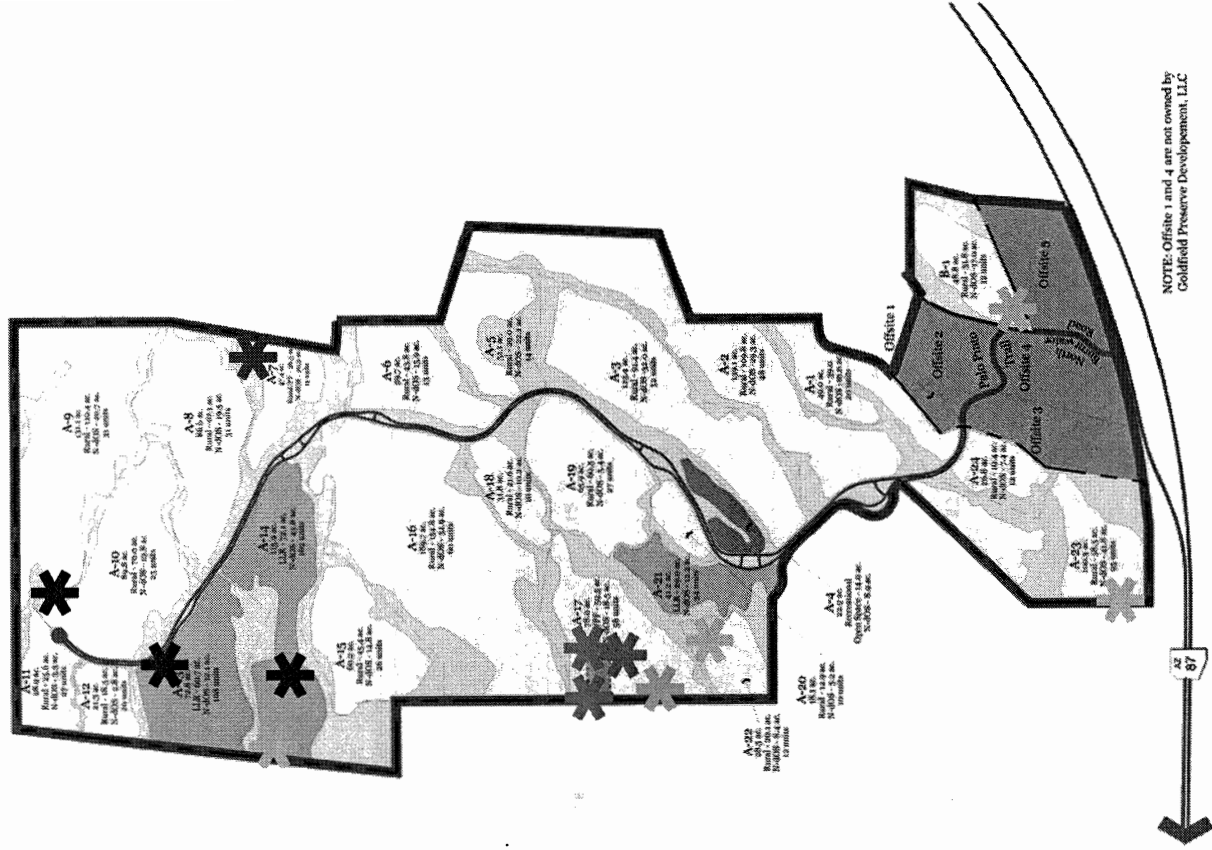
Recharge Well Site



Water Campus

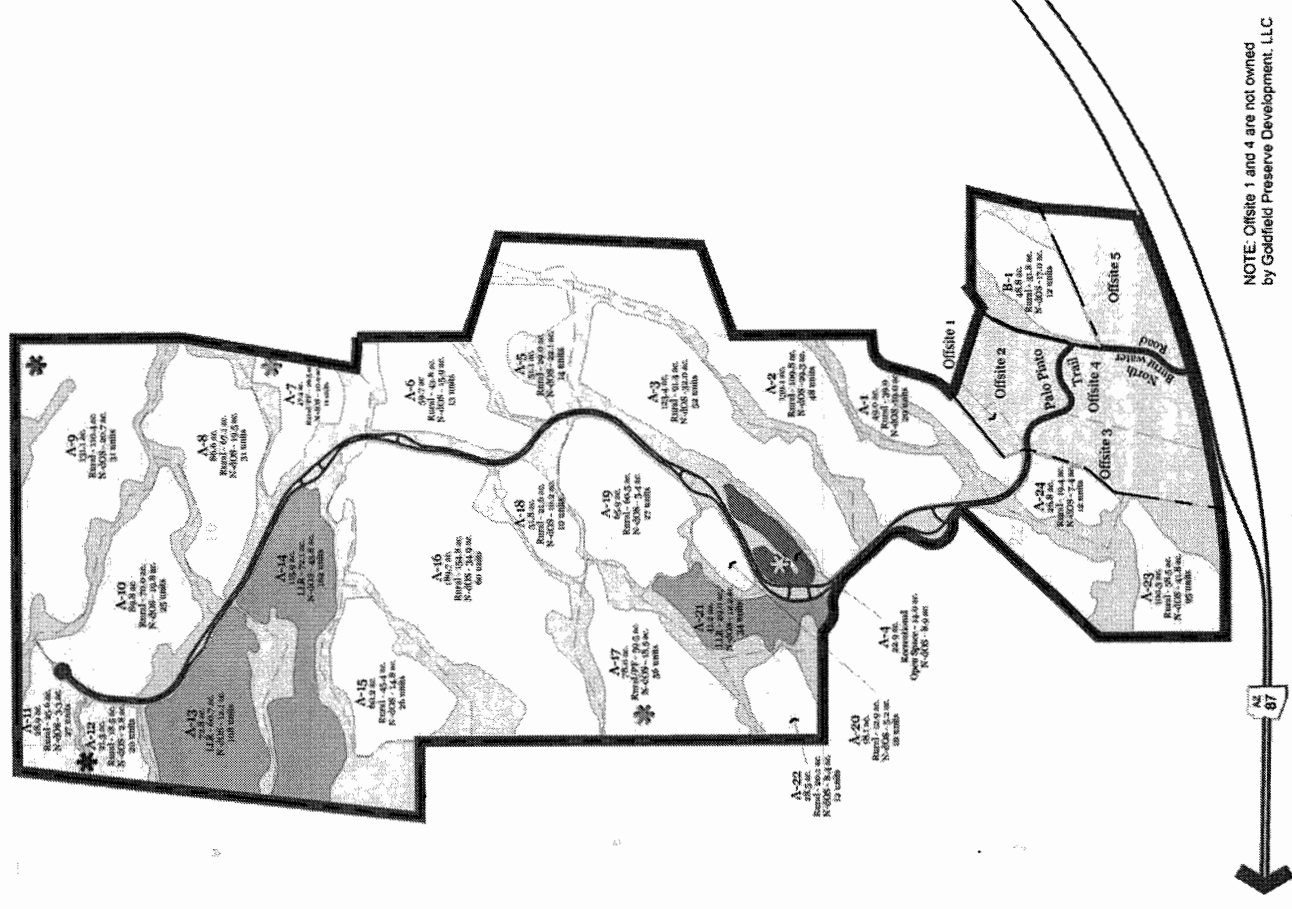


Lift Station



Responsive Modifications

- Increase in service area from 1,680 acres to 1,902 acres
- Population served of 3,283 persons
- Maximum WRF capacity of 0.4 MGD sufficient
- Effluent recharge and reuse to the maximum extent feasible
- Increased operation and maintenance cost range from \$150,000 – \$200,000 to \$250,000 – \$300,000 annually



Responsive Modifications

- Comment: Address inconsistencies between 208 Application and other submittals
- Response: Application modified to ensure consistency

Document	Gross Area (acres)	Dwelling Units	Population	Average Day Flow (MGD)
MAG 208 Plan Amendment (October 2007)	1,679.6 (Parcel A only)	983 (with potential spa/resort)	3,146	0.392 (based on 100 gpcd* and gross acreage)
Master Wastewater Report Amendment (January 2008)	1,902.1 (Parcels A & B and offsite areas)	1,026 (with potential spa/resort)	3,283	0.309 (based on 80 gpcd* and net acreage)
MAG 208 Plan Amendment (March 2008)	1,902.1 (Parcels A & B and offsite areas)	1,026 (with potential spa/resort)	3,283	0.367 (based on 100 gpcd* and net acreage)

* 80 gallons per capita per day (gpcd) used for pipeline design per AAC

* 100 gpcd used for treatment plant design per County requirements

Tribal Communication

2005 – 10/22/2007

Date	From	To	Description
8/19/2005	Goldfield	FMYN	Telephone conversation - request for meeting
8/25/2005			Meeting with FMYN
11/17/2006	Goldfield	FMYN/SRPMIC	Early Notification Letter DMP Amendment
11/21/2006	Goldfield	FMYN	Telephone conversation
11/22/2006	Goldfield	FMYN	Land use plan correspondence
12/5/2006	Goldfield	FMYN	Telephone conversation
12/6/2006	Goldfield	FMYN/SRPMIC	Early Notification Site Posting, DMP Amendment correspondence
1/26/2007	Goldfield	FMYN	Master Water Report correspondence
1/29/2007	Goldfield	FMYN	Master Water and Wastewater Master Plan correspondence
2/8/2007	Goldfield	FMYN/SRPMIC	Community Open House Meeting Notification Letter, DMP amendment
2/10/2007	Goldfield	FMYN/SRPMIC	Goldfield monthly newsletter
2/21/2007	Goldfield	FMYN	Meeting with Dr. Carole Klopatek
2/21/2007			Goldfield Ranch Homeowner's Association meeting
2/26/2007	Goldfield	FMYN	Master Water Plan correspondence
2/28/2007			Neighborhood open house
3/1/2007	Goldfield	FMYN	Follow up telephone conference regarding Water Master Plan
3/8/2007	Goldfield	FMYN	Follow up telephone conference regarding Water Master Plan
3/16/2007			Goldfield monthly newsletter
4/4/2007	Goldfield	FMYN	DMP second submittal correspondence

Tribal Communication

2005 – 10/22/2007 (continued)

Date	From	To	Description
4/9/2007	Goldfield	FMYN	Provided hard copy of second submittal of DMP
4/12/2007	Goldfield	FMYN/SRPMIC	Goldfield monthly newsletter
5/14/2007	Goldfield	FMYN	Transmittal of Draft 208 Plan
5/29/2007	Goldfield	FMYN/SRPMIC	Neighborhood open house invitation
6/11/2007			Neighborhood open house
6/27/2007			Neighborhood open meeting
7/18/2007	Goldfield	FMYN	Transmittal of third submittal of DMP
8/15/2007	Goldfield	FMYN	Transmittal of archaeological report
9/25/2007	FMYN	Goldfield	Letter indicating no comments at this time
10/2/2007	FMYN	MCESD	Comments from FMYN
10/8/2007	Goldfield	FMYN	Response to comments
10/9/2007	Goldfield	SRPMIC	Transmittal of Draft 208 Plan to SRPMIC
10/10/2007			Meeting with FMYN
10/22/2007			WQAC Meeting

Tribal Communication

10/23/2007 – 12/21/2007

Date	From	To	Description
10/30/2007	Goldfield	SRPMIC	Offer to meet
11/19/2007			Meeting w/ SRPMIC
11/20/2007	Goldfield	SRPMIC	Confirmation of 11/19/07 meeting, Goldfield Ranch 208 MAG Amendment letter
11/28/2007			Meeting with FMYN Tribal Council
12/4/2007	Goldfield	MAG	Supplemental materials requested
12/4/2007	SRPMIC	MAG	Comments from SRPMIC (2 parts)
12/5/2007	FMYN	MAG	Report of 11/28/07 meeting
12/5/2007	Goldfield	FMYN	Transmittal of 12/4/07 CMX letter to MAG
Undated	SRPMIC	Goldfield	Request for additional information
12/13/2007	Goldfield	MAG	Response to 12/4/07 SRPMIC comments
12/17/2007	FMYN	MAG	Comments from FMYN
12/20/2007	SRPMIC	MAG	Letter of concerns
12/21/2007			Second WQAC Meeting

Tribal Communication

12/22/2007 – 3/20/2008

Date	From	To	Description
1/11/2008	SRPMIC	Goldfield	Preliminary comments from SRPMIC
1/15/2008	Goldfield	FMYN	Transmittal of zoning and pre-plat applications
1/17/2008	Goldfield	SRPMIC	Plan for January meeting
1/17/2008	FMYN	Goldfield	Request for meeting
1/18/2008	Goldfield	FMYN	Response to comments and request for meeting
1/28/2008	FMYN	Goldfield	Request for meeting
1/29/2008			Meeting with SRPMIC
1/30/2008	Goldfield	FMYN	Request for meeting
1/30/2008	Goldfield	SRPMIC	1/29/08 meeting summary
2/11/2008	Goldfield	FMYN	Request for meeting
2/13/2007	Goldfield	SRPMIC	Community Open House Meeting Notification Letter, RUPD rezoning and Preliminary Plat Applications
2/13/2008	Goldfield	FMYN	Request for meeting and list of documents provided
2/27/2008			Meeting with FMYN
2/28/2008	Goldfield	FMYN	2/27/08 meeting summary and response to comments
3/10/2008	SRPMIC	MAG	Memorandum of concerns
3/17/2008	SRPMIC	Goldfield	Letter of concerns
3/20/2008			Third WQAC Meeting
			67

Tribal Communication

3/21/2008 – 4/9/2008

Date	From	To	Description
4/7/2008			Meeting with FMYN
4/8/2008			Meeting with FMYN
4/9/2008			MAG Management Meeting

MAG Question:
Do certain areas lend
themselves to being included
in service area?

Evasive Answer:

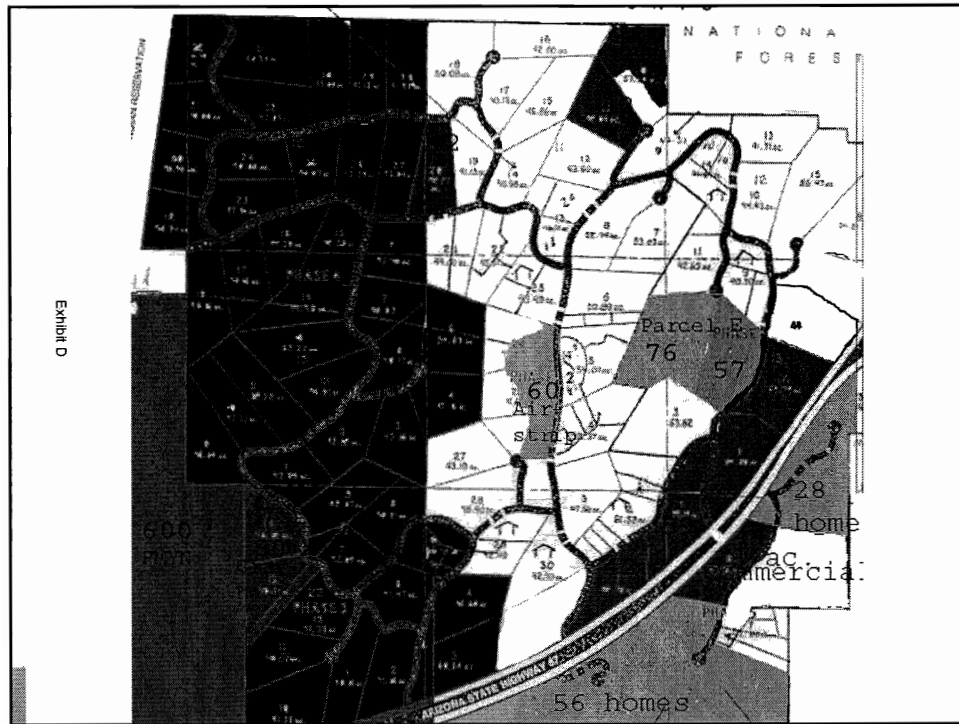
Small parcels to the east,
already with septic
tanks, probably not (¶3.2.2)



What was not answered?

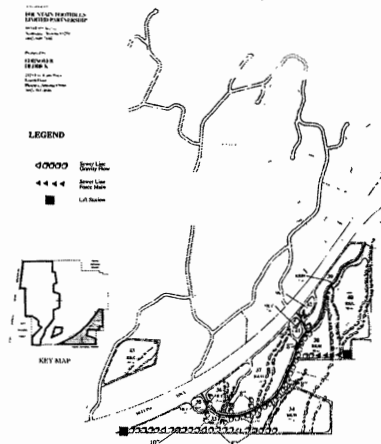
- What about small parcels without septic tanks?
- What about large parcels?
- What about land to the west?
- What about land outside of Goldfield Ranch?





Example: Could the service area include the south side?

- In 1995, Maricopa County said "YES"



The Preserve

MARICOPA COUNTY, ARIZONA

SEWER SYSTEM
Exhibit 23

Can the plant handle nearby areas that are NOT small lots on septic?

- 600 FMYN x 2du/ac = 1200 homes
- 80 Grayhawk x 2du/ac = 160
- Ellman parcels C & D = 84
- Other Ellman @ R-190 = 44
- Other large @ R-190 = 88
- Total homes = 1576 homes
- X 320 gpd/du = **504,320 gallons/day**
 - More than DOUBLE planned capacity
 - Does not include 68 acres commercial



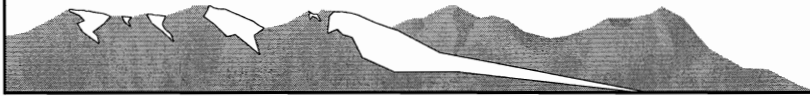
Why bother with this analysis?

- To prevent an “uncontrolled proliferation of small plants that could cause problems in the future” (MAG 208 WQMP § 4.5.2, at 4-224)



How can MAG prevent a proliferation of small plants?

- Consider, when approving a plant design, whether it can be expanded to serve future needs



Question: Can this plant be expanded?

- Evasive Answer: The relatively small parcels of private land on the east will not likely exceed plant capacity (¶ 3.2)

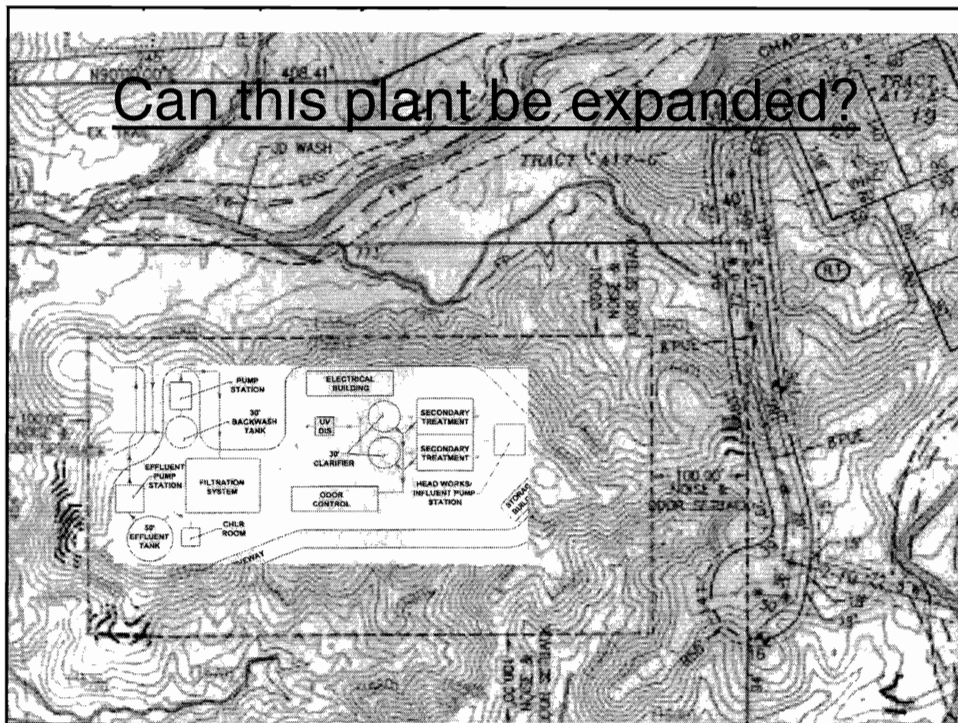


What was not answered?

- Can this plant be expanded?
 - Yes or no?
 - An engineering question, not a lawyer question
- What about?
 - Large parcels
 - Parcels to the West, *e.g.*, Grayhawk
 - Ellman's other parcels
 - Commercial development
 - 18 ac. between C and D – 1995 DMP still in effect
 - 50 acres on FMYN land



Can this plant be expanded?



GPD did not do its job

- MAG must do its job –
 - Send this back for GPD's engineers to consider ALL nearby areas
 - Send this back for GPD's engineers to answer whether plant could be expanded
 - Send this back for GPD to consider another site for a plant that could be doubled to meet future needs
 - Send this back for inquiry to ALL neighboring owners

This is what MAG planning is all about





Fort McDowell Yavapai Nation

P.O. Box 17779, Fountain Hills, AZ 85269

Phone (480) 837-5121

Fax (480) 837-1630

President Dr. Clinton Pattea

Vice President Bernadine Burnette

Treasurer Pamela Mott

Council Member Paul Russell

Council Member Ruben Balderas

Council Secretary Pansy Thomas

April 8, 2008

Mr. Dennis Smith
Maricopa County Association of Governments
302 N. 1st Ave.
Suite 300
Phoenix, AZ 85003

RE: Retraction of My Letter of April 7, 2008 on Small Plant Review at Goldfield

Dear Mr. Smith:

Please disregard the letter referenced above as it was signed by error on my part. The Fort McDowell Yavapai Nation has not approved the MAG 208 Amendment related to the wastewater reclamation facility for the proposed project at the Preserve at Goldfield Ranch.

Unfortunately I signed this letter in error while signing other documents not realizing that the content addressed a position the Tribal Council has not approved or that the letter was on letterhead from the previous Council.

Please accept my apologies for any confusion generated by that letter

Sincerely:

Dr. Clinton M. Pattea
President

cc: Don Kile
Goldfield Preserve Development
MAG Member Agencies



**SALT RIVER PROJECT
WATER RIGHTS & CONTRACTS**

Mail Station PAB110
POST OFFICE BOX 52025
PHOENIX, ARIZONA
85072-2025
(602) 236-5689

**David C. Roberts
(602) 236-2343**

April 8, 2008

Charlie McClendon, Acting Chair
MAG Management Committee
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

Dear Mr. McClendon:

It has come to our attention that on March 20 several members of the Water Quality Advisory Committee had questions related to the extent of the playa deposit (Pemberton Formation) purported by the applicant to extend below The Preserve property. Although SRP has not taken an active role in the MAG 208 amendment process, we do have an opinion on the extent of this playa deposit as it relates to pumping associated with the water supply wells being proposed for The Preserve.

After reviewing the applicant's hydrology report used to support its Application of Analysis of Assured Water Supply, a report by Skotnicki and others (Arizona Geological Survey) and the geologic logs for sixteen wells in the vicinity of The Preserve, it is SRP's opinion that the playa deposit does not underlie the entire basin, or the entire property in question. Figure 3 of the Skotnicki report (attached) shows the eastern extent of the playa (horizontal hatched area) to terminate along a north-south line within the Fort McDowell Indian Reservation. SRP conducted its own review of 16 well logs to better define the extent of the playa and believes that it extends into The Preserve, but only into northwest corner of the property. Of the sixteen wells reviewed, only two encountered clay. There were no clay deposits in the other thirteen well logs. That leads SRP to conclude that the applicant's argument that the playa forms a barrier is flawed, and that there is a hydraulic connection between the aquifer and the subflow of the Verde River.

I hope this helps to clarify SRP's opinion.

Sincerely,

A handwritten signature in black ink that reads "David C. Roberts". The signature is written in a cursive, flowing style.

David C. Roberts
Salt River Project

Cc: Shannon Harper, Salt River Pima-Maricopa Indian Community
Don Kile, The Preserve
Dr. Carole Klopatek, Fort McDowell Indian Community

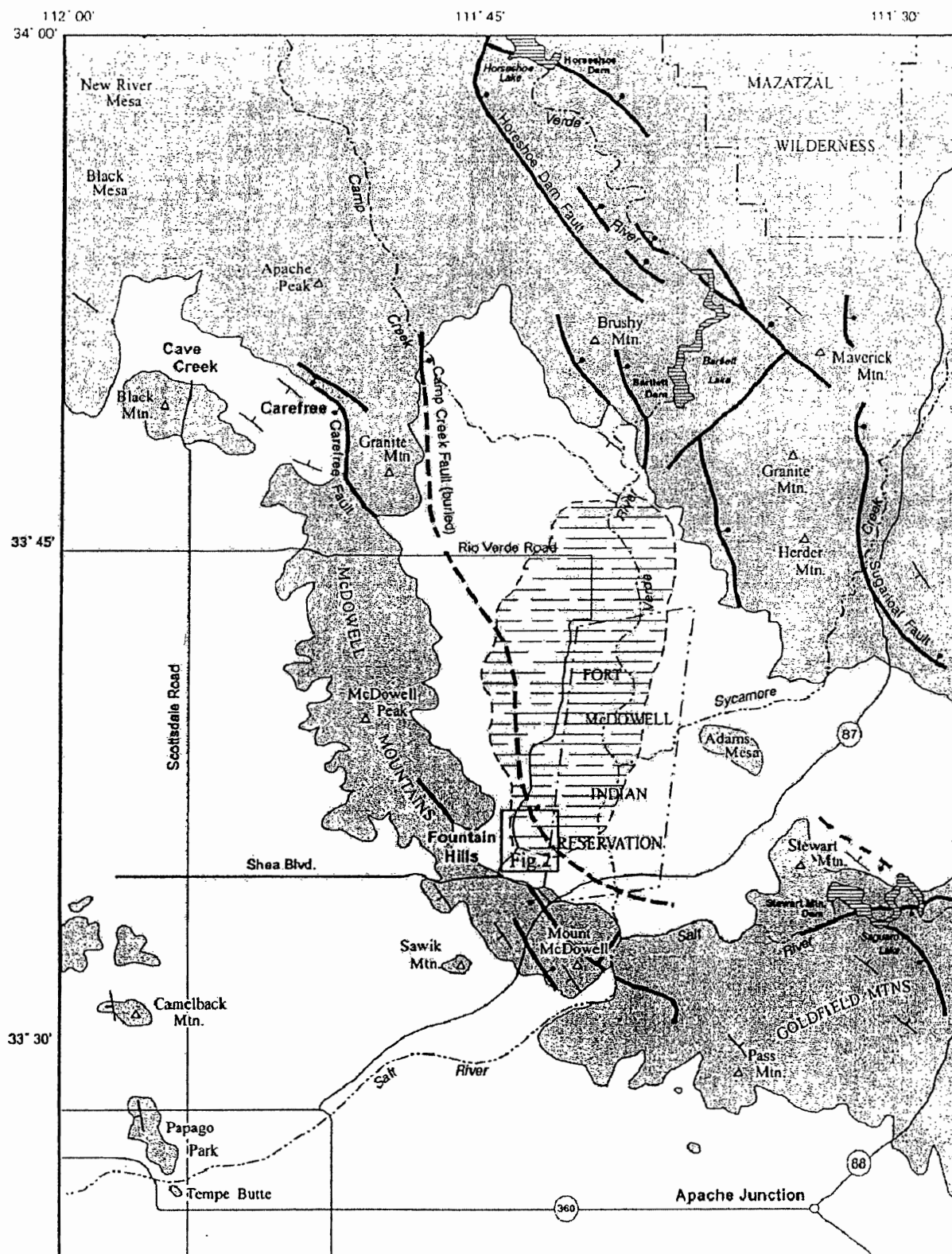


Figure 3. Probable distribution of playa deposits (informally called the Pemberton Ranch Formation) in the Lower Verde River valley.

Julie Hoffman

From: Azdebs@aol.com
Sent: Tuesday, April 08, 2008 2:15 PM
To: Julie Hoffman
Cc: haines@agilebroadband.com
Subject: comments regarding Preserve Sewage plans for Wednesday April, 9

Deborah J Sedlmayer
22027 E. Larkspur Drive
Goldfield Ranch
Fort McDowell, AZ 85264

I am alternately amazed and frustrated by Ellman's representatives frequent slide shows that are, for the most part, unchanged in the last two years. They have put an "X" on the map indicating where the sewage treatment plant will be located but not the details of the facility. This plant is placed in such a manner that expansion is impossible. When questions are asked, they simply shuffle their presentation and display the same old tired slides and "experts" in different order. They continue to fail to answer basic questions. Instead they attempt to distract with the same old dog and pony show.

It is time for my government to stop the slide show and demand answers with detailed substance. This is not a game of "he with the most slides wins". The Ellman group may be planning a responsible development, of which we would be in favor. We cannot reach a decision with sketchy ideas and dreams. We, and indeed you, must have concrete plans to determine if their plans will harm our air quality. How can we decide without details if our water quality and quantity will be assured and never compromised. These questions are important to the National Forest, The Nations and their neighbors at Goldfield, now and in the future.

Now is the time to stop letting them drift through the process. Now is the time to demand detailed answers to all the questions. Stop the shuffle slide show and protect the valley's water, The Nations, our National Forest and our neighborhood. We deserve nothing less.

Planning your summer road trip? Check out [AOL Travel Guides](#).

GOLDFIELD CONCERNED CITIZENS' ASSOCIATION

Kathy Haines, President, Phone: 480 980 4661
12140 N. Sin Vacas Trail, Ft. McDowell AZ 85264

April 8, 2008

Ms. Julie Hoffman
Maricopa Ass'n of Governments
302 North 1st Avenue Suite 300
Phoenix, Arizona 85003

Re: Agenda Item # 8, MAG Management Comm. Meeting April 9
Preserve at Goldfield Ranch, MAG 208 Small Projects Review

Dear Ms. Hoffman:

Please circulate this letter to all members of the MAG Management Committee and the MAG Regional Council with respect to the consideration of the Preserve and Goldfield Ranch Water Reclamation Facility as part of the MAG 208 Water Quality Management Plan.

Executive Summary:

➤ **Analysis of Nearby Areas Must be Done.** The MAG 208 Water Quality Management Plan requires an analysis of whether certain areas lend themselves to being included in the service area, and whether nearby areas should be sewered for water quality or economic reasons. This analysis has not been done, and the requested permit should not be approved until it is.

➤ **Nearby Areas Could Be Included and Should Be Sewered.** And in fact, many nearby areas do lend themselves to being included in the service area, and a number of them must be sewered. This would require expansion of the plant. This analysis has not been done.

➤ **Plants Should Be Designed for Future Expansion; This Plant Is Not.** A fundamental purpose of the MAG 208 Water Quality Management Plan is to plan for the future of the region, so that when plants are built they are designed to accommodate future needs. The Goldfield Preserve's application only considers the needs of this particular development. Even if this plant is appropriate for this development now, it should be located where it can be expanded to meet the needs of future development. But Goldfield Preserve has located its plant where it cannot be expanded to meet future needs. The Preserve's application should not be approved until the plant is designed and sited so it can be expanded to meet future needs of the region.

1. The Application Fails to Consider All Relevant Adjacent Parcels.

The planning criteria set forth in Table 4.53 for a Small Plant Application outside of a municipality require the applicant to address whether certain areas lend themselves to being included in the service area, whether nearby areas should be sewered for water quality or economic reasons, and whether nearby areas wish to join the proposed plant. The reason for these requirements is to prevent “an uncontrolled proliferation of small plants that could cause problems in the future.” MAG 208 Water Quality Management Plan Update at 4-224. None of these three requirements has been satisfied by the Goldfield Preserve’s application.

The application only considers “the relatively small parcels of private land (1 to 5 acre lots) in the original Goldfield Ranch community,” which “are already developed and operating individual septic systems” (§ 3.2.2). It then goes on to state that it would not be feasible for most of those small lots to be sewered or included in the service area. But the underlying premise is both *incomplete* and *inaccurate*, and therefore the analysis fails to satisfy these technical requirements for a Small Plant Review and Approval.

a. The Plan Fails To Consider Grayhawk’s 80-Acre Parcel. The analysis is incomplete because it fails to address the 80 acre parcel lying immediately adjacent and west of Parcel A of the Preserve development. This parcel is owned by Grayhawk Development, who has filed with the County a conceptual development plan for development at a density of up to two homes per acre. That development plan is attached as Exhibit A, and the location of the parcel is shown on Exhibit D.

At Grayhawk’s planned density, the 80 acres would have to be sewered because Maricopa County does not permit septic tanks on half-acre lots. And it would be entirely feasible to sewer these lots and connect them to the Goldfield Preserve WRF. As Grayhawk’s plan states, its 80 acres consists of “flatter terrain and lower elevations of 1,550 – 1600.” This flatter terrain slopes gently from the Preserve’s WRF, which is at 1600 feet elevation.

Yet Grayhawk’s 160 homes would by themselves generate 51,200 gallons per day of wastewater, and this amount alone would exceed the capacity of the Preserve’s proposed plant. The plant is designed to handle only 400,000 gallons per day, and the Preserve’s plan has already committed 367,000 of that. Preserve Application at 3.

b. The Plan Fails to Consider FMYN’s 600 Acres to the West. The analysis also fails to consider the 600 acres immediately adjacent on the western boundary of the Preserve. This land is owned by the Fort McDowell Yavapai Nation in fee, not as part of its reservation. The FMYN has filed letters with the County stating its desire to have these acres planned for “overall residential density on the 600 acres of up to two homes per acre,” plus “up to 50 acres” of commercial use along State Route 87. FMYN Letter of May 18, 2007, attached hereto as Exhibit B, at 3. That letter also notes that the 600 acres “have extensive direct access to the Beeline Highway and have more favorable topography for development.” *Id.* at 5. Indeed, it notes the Ellman’s Preserve development plan “places all of the high density residential development on the western portion of its property (adjacent to the Nation’s reservation, its 600 acres, and Greyhawk Development’s 80 acres), with densities “as high as 2.01 homes per acre.”

The flatter terrain in that area is why the higher densities are proposed to be located there, and the FMYN's 600 acres share that same flatter terrain.

Obviously a density of two homes per acre would have to be sewered. And Goldfield Preserve has already noted that it would not make sense, nor be environmentally safe, to transport raw sewage across the Verde River to reach the existing FMYN sewage treatment plant. Consequently development of the 600 acres would either require its own additional small plant, or connection to the Preserve's small plant. But of course the 1,200 homes alone would generate 384,000 gallons per day, which would require **doubling** the size of the Preserve's treatment plant, and that does not include the 50 acres of commercial uses the FMYN plans.

For two fundamental reasons, the failure to analyze these potential future needs is not excused by the fact that the FMYN does not currently plan to develop those acres. First, whether nearby areas "wish to join the proposed plant" is a separate analysis that the MAG 208 Water Quality Management Plan requires to be provided. In addition to providing that analysis, the Plan also requires the applicant to answer: "Can the proposed plan be expanded to serve growing population, " and "Would certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area?" The Preserve application answers neither of those questions. Second, the FMYN's current development plans are not controlling because these fee lands could be sold to another developer. So the real question that must be answered is not just the current owner's intentions, but how a future owner/developer would logically want to develop the land. And with topography much like the western portion of the Preserve and greater access to the State Highway, it is logical to expect that such a future developer would want the same density as the western portion of the Preserve, *i.e.*, two homes per acre.

c. Plan Fails to Consider Parcels C, D and 18 Acres Commercial. The plan also fails to consider whether the plant should be designed to accommodate future development of Parcels C and D and the intervening 18 acres of commercial planned development. As noted above, the application contains not one word of analysis whether this acreage and development plans lend themselves to being included in the service area. This is because the entirety of the analysis is limited to the "relatively small parcels of private land (1 to 5 acre lots)" that are "already developed and operating individual septic systems." Preserve Application ¶ 3.2.2 and Fig. 4. The large parcels south of the Beeline are never mentioned, much less analyzed for feasibility to connect to the planned sewer system.

Parcels C and D are planned by Ellman Companies to include 84 homes. These homes would generate 26,800 gallons of sewage per day, which by themselves would bring the planned facility within 98% of its capacity. And the 18 planned commercial acreage lying between C and D would have to be sewered, and it would exceed the plant's capacity. Ellman Companies successfully fought to maintain the validity of the development master plan with those commercial acres included.

Moreover, the feasibility of connecting this acreage to the Preserve sewage plant has already been determined, and approved by Maricopa County. In 1995 Maricopa County approved a development master plan for this acreage, which included a sewer system connecting

to a sewage treatment plan in the Preserve. The design of that system is attached as Exhibit C. And, again, Ellman Companies was successful in maintaining the validity of that plan.

d. Plan Fails to Consider Ellman's Other Parcels. Indeed, the plan even fails to consider the potential future development of another 193 acres owned by Goldfield Preserve Development in the immediate vicinity – Parcel E and the airstrip parcel. And it would be a simple matter to run a sewer line from the southwest corner of the 60-acre airstrip parcel down Sin Vacas Trail and Burntwater to connect with the sewer line serving Parcel B, because that is all a gentle downhill slope.

At minimum, Goldfield Preserve Development should be required to declare its development intentions for all of the acreage it owns in Goldfield Ranch that is outside of the Preserve. It has not included any analysis of the 60-acre airstrip parcel and the 133-acre Parcel E, and when it counted the “offsite” parcels lying south of Parcel B it did so only according to the existing R-190 zoning. Yet Goldfield Preserve Development President Don Kile has stated publicly that he might seek to rezone at least one of those parcels to R-70, and has refused to commit not to seek rezoning for the airstrip parcel.

Because the 208 MAG Plan requires an application to determine the development intentions of neighboring landowners, this would seem to require, at a minimum, that an applicant disclose his own intentions for neighboring parcels he owns. And it is evasive at best for such an applicant merely to assume development under existing zoning, without disclosing any intentions he may have to seek rezoning for higher density. This is supposed to be a planning function, not a game of hide-the-ball.

e. Plan Fails to Consider Seven Other Large Nearby Parcels. Finally, the plan contains no analysis of another seven nearby parcels that are 40 acres or larger. One of these parcels, consisting of 42 acres, is immediately adjacent to the Preserve. And 214 acres are immediately adjacent to State Highway 87. These could easily be connected to the sewer system by running the sewer lines down the highway, which is a gentle downgrade with no intervening hills or valleys, to the parcels that are included in the plan near the Burnt Water entrance. Even under the current R-190 zoning, these 339 acres could be developed with 77 homes, which would produce 24,880 gallons per day, and would by themselves almost exhaust the plant's planned capacity.

A graphic demonstration of all of the large nearby parcels that the application fails to consider is attached as Exhibit D. If Parcels C and D and the FMYN and Grayhawk parcels are developed according to the plans that have been disclosed in other contexts, these four parcels alone would accommodate 1,244 homes. If the other large 40+ acre parcels were developed under the current R-190 zoning, these 629 acres would accommodate another 144 homes. The total of 1,388 homes would generate 444,245 gallons of sewage per day. To handle that, the proposed plant would have to be more than doubled in size.

2. The Preserve Sewage Plant Cannot Be Expanded.

One of the key planning criteria that the MAG 208 Water Quality Management Plan requires to be answered is: **“Can the proposed plant be expanded to serve growing population?”**

The Preserve’s application is deficient because it does not address this question at all. The application evades answering whether the plant could be expanded by asserting that because the planned service area is “bordered on the east by the relatively small parcels of private land (1 to 5 acre lots),” it is the developer’s opinion that “the plant capacity calculations would not likely be exceeded.” Application ¶¶ 3.2 & 3.2.2. As noted above, the premise is both false and incomplete because there are large parcels to the east and because it fails to consider the 680 acres to the west. But even if the premise were true the statement does not satisfy the MAG 208 planning requirement, to analyze whether the plant could be expanded.

Perhaps the reason this fundamental planning question is not answered is because the plant is located where it **cannot be expanded**. Attached as Exhibit E1 is a topographic map showing the location of the facility, and E2 is the same map overlaid by the site plan for the facility. The plant is located on a narrow ridge that drops off by 30 feet on three sides, and at the bottom of those dropoffs are 208 jurisdictional washes. And the fourth side of the ridge is too narrow to hold more than the road to the plant, and not any expansion.

To allow for any expansion of this plant, it would have to be relocated. It would probably be just as feasible to locate it where it was in the 1995 Development Master Plan, at the southwest corner of section 15. According to the 1995 DMP, that site “can service the largest area of the site by gravity flow,” and was large enough to accommodate a plant with a million-gallon-per-day capacity. It should not be any more expensive for Goldfield Preserve Development to locate its plant there, and it would allow for it to be expanded by 2 ½ times the capacity.

3. Conclusion.

There is no incentive for any developer to design a sewage treatment plant of greater capacity than necessary to serve his particular development, or even to design one that could be expanded in the future. Nor is there any incentive for any developer to adjust his plans to accommodate neighboring development that might occur in the future.

But that is exactly why the MAG 208 Water Quality Management Plan **requires** developers to analyze potential nearby developments, and to tell MAG whether their sewage treatment plant could be expanded. Both of these requirements are necessary so that MAG can accomplish its regional planning function, and so that, if appropriate, the plant be located somewhere else to accommodate future population, in order to avoid “an uncontrolled proliferation of small plants that could cause problems in the future.”

This application has failed even to attempt to satisfy those requirements. And they cannot be satisfied now by the developer’s lawyer stating there is a “lot of topography” that

makes it infeasible for other parcels to be served. These are engineering questions, not legal questions, so it will take engineering analysis to provide MAG with appropriate answers.

This does not mean that MAG must ultimately deny Goldfield Preserve Development a permit to construct its planned sewage treatment plant. It does not even mean that MAG must require GPD to build a larger plant. And it certainly does not mean that MAG must require this developer to provide sewage treatment service to neighboring parcels.

All it means is that MAG must require the applicant to provide the analysis that is required by the MAG 208 Water Quality Management Plan. And even if that analysis shows the plant should be moved so that it could accommodate future expansion, that should not cost the developer any more than its present location. This developer will not be responsible to pay for the future expansion – that can be accomplished by the Domestic Water Improvement District after the Preserve is built out. It can annex adjoining land and levy taxes to pay for any necessary expansion.

In light of these serious deficiencies, this application should not be approved until it contains all the analysis that is required by the MAG 208 Water Quality Management Plan. Without them, it does not comply with that plan and cannot be approved.

Sincerely,



Kathy and Randy Haines
President and Secretary
Goldfield Concerned Citizens' Association

Attachments: A – Grayhawk's conceptual development plan for 80 acres
B – FMYN's development plans for 600 acres
C – 1995 DMP sewage plan for Parcels C and D and 18 acres commercial
D – Graphic of nearby parcels > 40 acres
E – Topo showing plant location

cc: Hon. Supervisor Don Stapley
Wesley A. Shoner, P.E.
Dr. Carol Klopatek, FMYN
Mr. Kevin Chadwick, P.E., Division Manager



March 6, 2007

Matt Holm
Principal Planner
Maricopa County Planning and Development Department
501 North 44th Street, Suite 200
Phoenix, AZ 85008

Re: Goldfield Ranch, Phase III, Lots 13 and 14

Dear Matt:

Grayhawk Development is the developer for Goldfield Ranch, Phase III, Lots 13 and 14, which are owned by Four Peaks Holdings, LLC. The site area is approximately 80 acres and is currently zoned Rural-190. Grayhawk is creating a conceptual development plan for this area. We request that our plan be incorporated into the Maricopa County Eye To The Future 2020 Goldfield Area Plan that is currently being updated by the County Planning and Development Department. We propose that the future land use for Lots 13 and 14 to be designated as 1-2 units per acre. Please reference the enclosed illustrative development plan.

- **Location**

Goldfield Ranch is located on State Route 87 approximately five miles east of Fountain Hills. Lots 13 and 14 of Phase III are each 40 acre parcels located on the western edge of the Goldfield Ranch community. The 600± acres adjacent to the west are privately owned by the Fort McDowell Yavapai Nation and were acquired in the 1990s through a land exchange with the United States Forest Service. The adjacent property to the north, east and southeast is approximately 1,600± acres known as The Preserve at Goldfield Ranch and is owned by Goldfield Preserve Development, LLC. This owner recently submitted a request to amend the Development Master Plan that was approved for this property in 1995. Please reference the attached location map.

- **History**

Since 1993, the mission of Grayhawk Development has been to create unique projects that enhance the quality of life for our residents while at the same time honoring the intrinsic value of the natural Sonoran Desert environment and the history of the land. With focus on this purpose, Grayhawk has developed master planned communities of uncompromising quality, beauty and sensitivity.

Grayhawk Scottsdale is a 1,600 acre master-planned community that embraces a broad mix of housing types, two championship golf courses, numerous neighborhood parks, 31 miles of multi-use trails, schools, retail shopping, dining, medical campus, office and commercial development with neighborhoods that people want to call home. The distinctive landscape and architectural palette of this community complements and respects the natural desert environment.

Whisper Rock Estates/Sevano Village is a 1,000 acre community in north Scottsdale comprising two golf courses and 400 units consisting of townhomes, villas, semi-custom homes and custom home sites ranging from one to almost five acres. This extreme low density environment offers timeless natural beauty and allows the neighborhoods to blend seamlessly with the desert surroundings.

Grayhawk Development is familiar with the Goldfield Ranch area. We became enticed with the rural character and charm of the area in 1997 when we first had the opportunity to purchase the Preserve at Goldfield Ranch. Grayhawk's planning and engineering team spent well over two years evaluating the Preserve property and is extremely familiar with the entire site. While Grayhawk was not successful in acquiring this property, we did purchase Lots 13 and 14 in 2000.

Since 1993, Grayhawk Development and their representatives have made it a priority to communicate with the local neighbors and neighborhood organizations regarding any of their development plans.

- **Request**

Our various development plans for the 80 acres in Lots 13 and 14 results in 1-2 units per acre with a minimum of 20 to 25 acres (30%) of open space. We request that our plan be incorporated into the current update for the Goldfield Area Plan and reflect the land use for Lots 13 and 14 as 1-2 units per acre. Access to the 80 acres will be via existing dedicated roadways shared with the Preserve development and other Goldfield Ranch property owners. We believe our plan is consistent with the goals, objectives and policies identified in the Goldfield Area Plan, Draft 1 dated January 2007. We are committed to an efficient land development plan that is compatible with adjacent land uses, sensitive to the natural desert environment and that sustains the rural character, charm and lifestyle of the area.

- **Environmental Conditions That Support Goldfield Area Plan Goals, Objectives and Policies**

Topography and Slope Conditions. The topography for the general Goldfield Ranch area slopes from the northeast to the southwest where Phase III, Lots 13 and 14 are located. The elevation ranges from a high of 1,800 + in the northwest to 1,500± feet in the southwest portion. The area is characterized as undulating terrain with short, steep slopes in the northeast and shallower slopes to the southwest. The flatter terrain and lower elevations of 1,550 – 1,600 in Lots 13 and 14 provide more land area to accommodate 1-2 units per acre. The adjacent properties

surrounding Lots 13 and 14 to the west, north, east and southeast have similar topography and would also support 1-2 units per acre.

Vegetation. The Goldfield Ranch site is typical of the Sonoran Desert environment. **However, approximately 75% of the Lot 13 and 14 property was badly burned in a fire in the 1990s.** The Sonoran Desert plant palette features a diverse mix of desert trees, shrubs, ground covers and cacti. The remaining native plants on Lots 13 and 14 consist of small trees including Palo Verde, Catclaw and Mesquite; shrubs such as Creosote, Bursage, and Saltbush; and cacti including Saguaro, Barrel, Hedgehog, Prickly Pear and Cholla. The smaller shrubs and cacti are growing back fairly well in the years since the fire, while the larger trees and cacti are still struggling. Our development plan of 1-2 units per acre allows for significant revegetation of natural area open spaces and wash corridor areas. Grayhawk Development has expertise in revegetation and restoration of the natural desert environment through the course of construction at both Whisper Rock/Sevano Village and Grayhawk Scottsdale and will use this knowledge to restore the burned areas with a native indigenous plant palette.

Open Space. The existing wash corridors through Lots 13 and 14 will remain as open space and will be enhanced with native desert landscaping to create a riparian habitat. Enhancing the wash corridor landscaping provides an opportunity to extend open space connections to the adjacent properties. The plan for 1-2 units per acre incorporates approximately 20-25 acres (30%) of meaningful open space on the property.

Major Washes. Grayhawk Development and their planning and engineering team have carefully mapped the 404 washes and flood planes through the 80 acre site. The 1-2 units per acre development will allow for storm water to be conveyed through the existing washes on the property.

Lighting. The development plan for Lots 13 and 14 will incorporate design standards that minimize lighting to respect and preserve the dark, night skies. Street lights are not proposed for the property. Lighting will be restricted to low landscape light and wall sconces to provide safety lighting at night.

We believe that the existing and proposed entitlements adjacent to the three sides of the property (The Preserve DMP) as well as the environmental conditions outlined above substantiate our proposed development of 1-2 units per acre on Goldfield Ranch, Parcel III, Lots 13 and 14. We ask that the County Planning and Development Department support the change in the land use designation on these parcels to 1-2 units per acre and include our request in the Goldfield Area Plan update report.

Thank you for your assistance in this matter. Please contact us if you have any questions.

Sincerely,

GRAYHAWK DEVELOPMENT

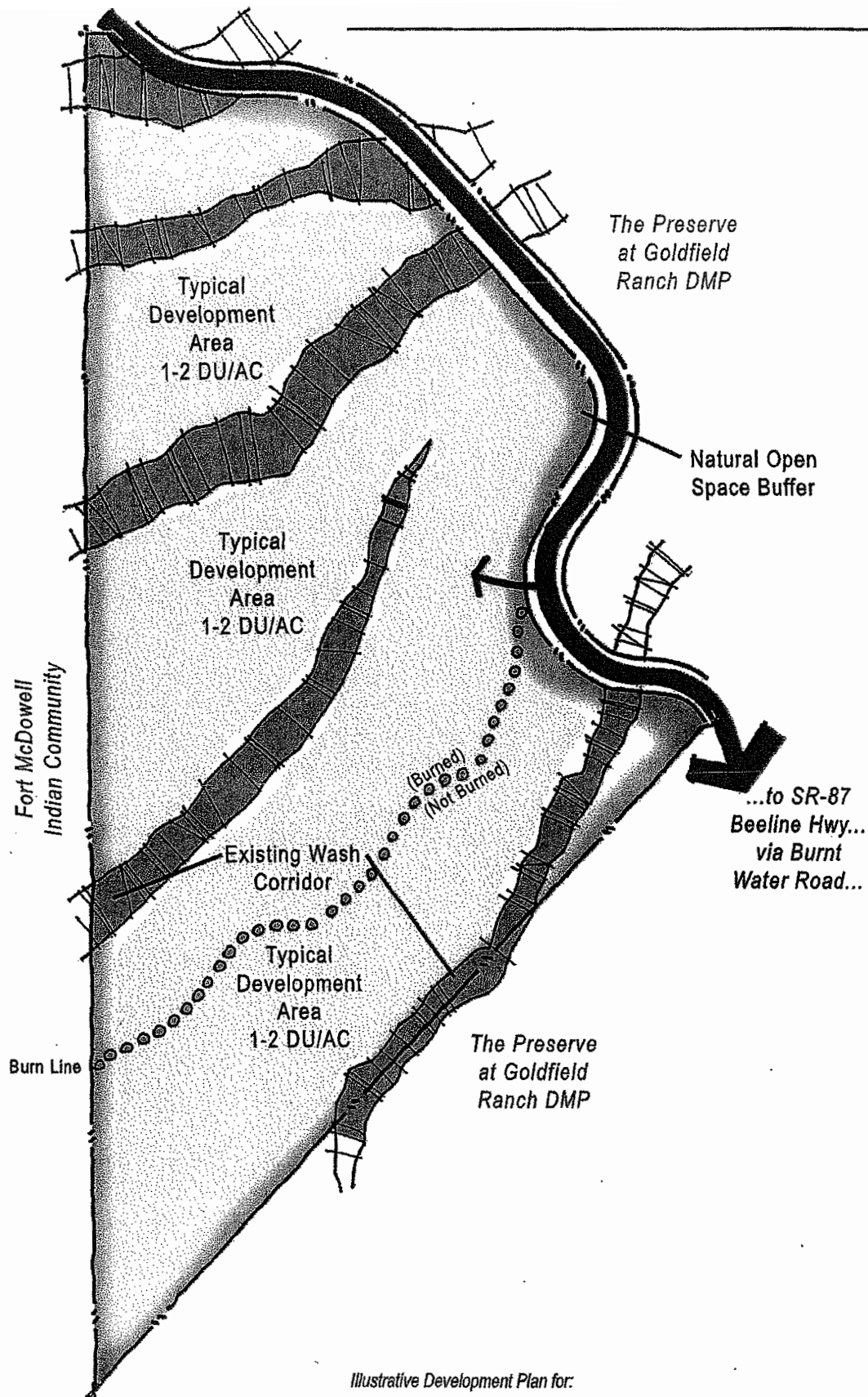


Brian Baehr
Vice President

Enclosures

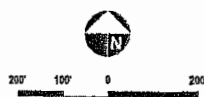
Cc via email: John Verdugo/Maricopa County Planning and Development, w/enclosures
Brian McCabe/Maricopa County Planning and Development, w/enclosures
Orlando Moreno/Fort McDowell Yavapai Nation, w/enclosures
Mark Horvath/Fort McDowell Yavapai Nation, w/enclosures
Randy Haines/Goldfield Ranch Concerned Citizens Group, w/enclosures
Tom Bruckman/Goldfield Ranch Homeowners Association, w/enclosures
Virgil Dutton/Goldfield Ranch Homeowners Association, w/enclosures
Tom Parsons/Goldfield Ranch Homeowners Association, w/enclosures
Joe Sedlmayer/Goldfield Ranch Homeowners Association, w/enclosures
Bob Waldo/Goldfield Ranch Homeowners Association, w/enclosures
Don Kile/Goldfield Preserve Development, LLC, w/enclosures
Wendy Riddell/Berry & Damore, LLC, w/enclosures

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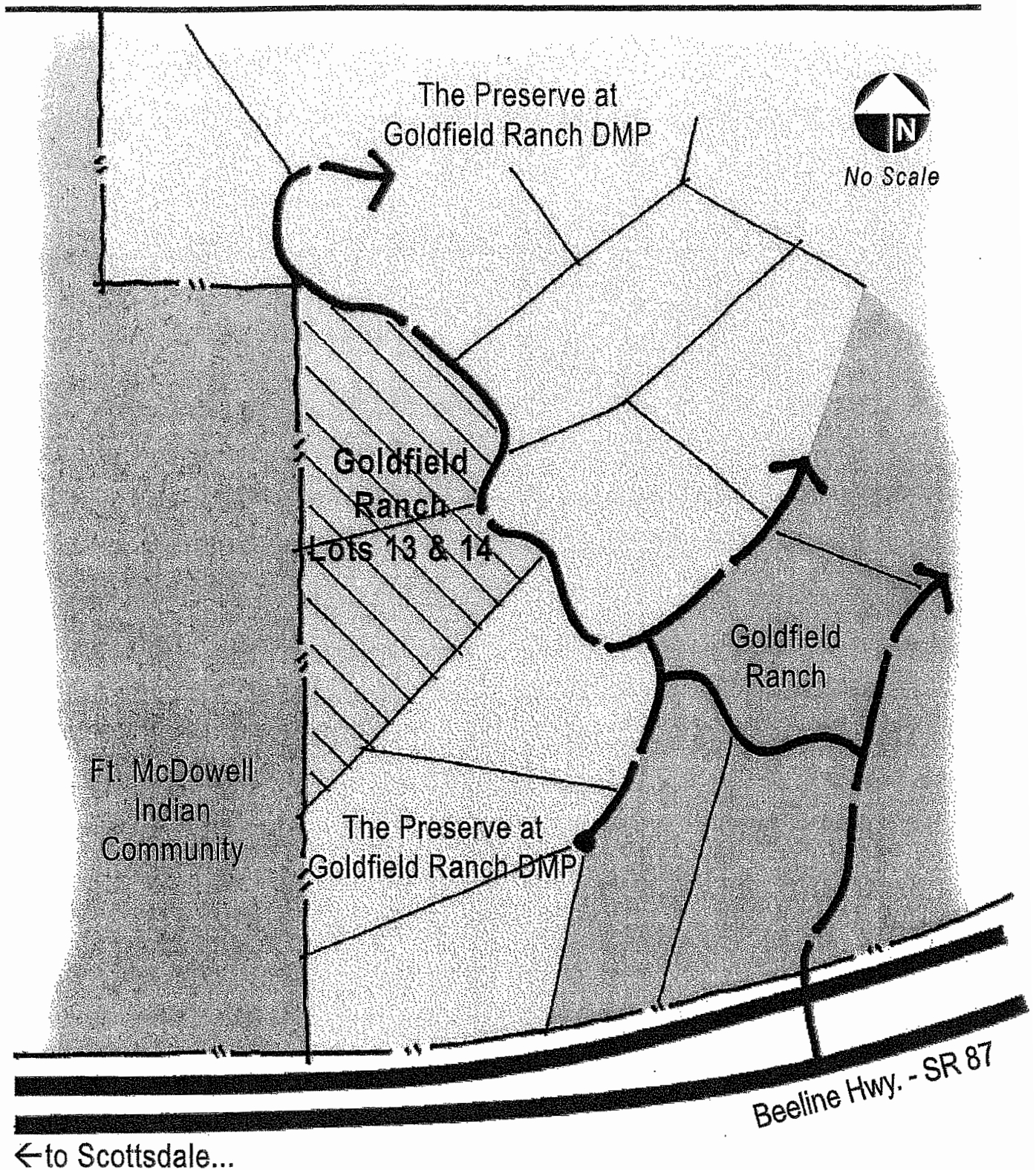


GOLDFIELD RANCH PHASE III - LOTS 13 & 14

TERANOW ASSOCIATES, P.C.
community planning
landscape architecture
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Location Map for
GOLDFIELD RANCH PHASE III - LOTS 13 & 14

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May 18, 2007

VIA EMAIL

Matt Holm
Principal Planner
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501 North 44th Street, Suite 200
Phoenix, AZ 85008

RE: COMMENTS FROM THE FORT MCDOWELL YAVAPAI NATION
REGARDING THE DRAFT#2 OF THE GOLDFIELD AREA PLAN UPDATE
2005

Dear Mr. Holm:

As you know, I represent the Fort McDowell Yavapai Nation ("Fort McDowell" or "Nation"). I have reviewed Draft #2 Goldfield Area Plan Update 2005 ("Draft Area Plan"). Previously, Mr. Orlando Moreno submitted detailed comments on behalf of the Nation regarding Draft #1 in a letter dated March 27, 2007. I will not repeat all of those comments, but I have attached a copy of his comments to this letter.

Unfortunately, not one of my client's requests or objections have been incorporated or noted in the Draft Area Plan.

**FORT MCDOWELL AND ITS CONSTITUENTS HAVE NOT BEEN
ACCORDED FAIR CONSIDERATION**

In your previous correspondence to me, you state that the overwhelming response from the public is to maintain the existing densities. However, that statement is not supported because the Nation's 600 acres, its residents, its employees, and its nearly 26,000 acres of trust land are all within the existing Goldfield Area Plan ("existing Area Plan"). Let me elaborate:

- The Nation represents approximately 930 Tribal Members.
- The Nation represents approximately 650 persons (including Tribal members, other Native Americans and non-natives) living on the reservation.
- The Nation employs approximately 1500 persons on or near the reservation. It is the largest employer in the area.

- The Nation's trust lands are adjacent to the Goldfield Ranch subdivision, and the Nation's 600 acres of fee land are located between the Nation and the Goldfield Ranch Subdivision.
- The Nation has requested increased residential density for its 600 acres.

Given the above facts, it is factually incorrect to state that the overwhelming response (or even a majority) favors maintaining the existing R190 Zoning for the Nation's 600 acres. The Nation and its constituents, who greatly outnumber the number of other comments received (e.g., 30 comments favoring the existing R190 zoning), have not been accorded appropriate consideration. In fact, there is no mention at all of any disagreement with the policy of R190 zoning in the Draft Area Plan.

The Nation and its residents are currently within the existing Area Plan. Therefore, the overwhelming majority of residents within the existing Area Plan (through their government) have indicated support for the Nation's requests. If the County staff feels that only the residents of the revised area should be given appropriate consideration, that recommendation could be in a report to the Planning and Zoning Commission and the Board of Supervisors. However, to be factually correct, the Draft Report should state that the majority of residents within the existing Area Plan support the Nation's request. If merely scant consideration will be given to the greatest population sector in this Update to the existing Area Plan, then all of the Nation's land should be removed from the Draft Area Plan (including its 600 acres of fee land).

It is also important to note that all of the comments in support of the R190 zoning are from the residents who live within the eastern portion of the revised planning area. The Nation's 600 acres are located on the far western portion of the revised planning area.

SUMMARY OF COMMENTS AND SUGGESTIONS

The Nation's positions are as follows:

I. Fort McDowell does not believe that the merits of substantially decreasing the planning area (thus excluding the Nation and its constituents) have been sufficiently justified or explained.

II. If the planning area is to remain substantially decreased, then the 600 acres owned in fee by Fort McDowell should be excluded from the revised small planning area. The Nation and its constituents have not been accorded fair consideration in this process, particularly when taking into consideration the number of its constituents, the economic importance the Nation plays in the region, and the impacts that any development at Goldfield Ranch will have on the Nation (See Exhibit B for several other examples). Moreover, the removal of the Forest Service lands (approx. 88,000 acres), the Nation's lands (approximately 24,000 acres), and other lands from the revised planning area is consistent with removing the Nation's 600 acres of fee lands (formerly Forest

Service lands). Out of basic fairness and the sound reasons stated in the Nation's earlier comments, the Nation's 600 acres should be excluded from this process.

III. If the 600 acres are not excluded, this planning process must be revised to properly involve the Nation as directed by both the existing Area Plan and the Draft Area Plan. The 600 acres were added late in this process. By the time the Nation became involved soon after its 600 acres were added late in the process, the County appeared to have decided its position on densities and other planning issues for the Nation's 600 acres.

In 1994-95, the County administered a number of workshop meetings with representatives from the primary stakeholders. That model should be considered again. Currently, the Nation is working with the Homeowners to determine if the parties can reach a mutual understanding. This process must be allowed adequate time to proceed. Therefore, the July planned meeting before the Planning and Zoning Commission should be postponed.

IV. If the 600 acres are not excluded and the process is not revised as suggested above, then the Draft Area Plan must not unduly restrict the land to the west of the Preserve, including Fort McDowell's 600 acres of fee land. For the reasons set forth below, the Nation requests that the policies for its 600 acres located on the far western side of the revised planning area allow, subject to other policies (e.g., water supply, sewer, protecting washes, etc.), the following:

A) a planning designation permitting a maximum overall residential density on the 600 acres of up to two homes per acre; and

B) a planning designation permitting a reasonable amount of commercial space based upon the population projections in the Draft Area Plan (up to 50 acres) along the four lane divided State Route 87 (Beeline Highway).

Separate section(s) or subsection(s) dealing with the Nation's 600 acres (or all lands to the West of the Preserve DMP) must be added to the Draft Area Plan. These separate sections would establish planning goals and policies that are unique to the lands to the west of the Preserve DMP, including Nation's 600 acres. Finally, the Nation wants to emphasize that these requests are land planning requests and not zoning requests.

CHANGES FROM EXISTING AREA PLAN TO THE DRAFT AREA PLAN

A comparison of the language of the Existing Area Plan versus the Draft Area Plan clearly show severe negative impacts for the Nation's 600 acres. I have attached an exhibit that compares and contrasts Land Use language between the existing Area Plan and the Draft Area Plan (See Exhibit A).

The Draft Area Plan encourages the R190 zoning as a policy and objective. The R190 zoning is not an appropriate planning policy or objective for the Nation's 600 acres. The Nation agrees that the overall character of the area should be rural. However, we believe that the Draft Area Plan goes too far in that regard and is inconsistent with the existing Area Plan. The Draft Area Plan is overly driven by the natural land features (e.g., topography) of the existing and future housing developments to the east of the Preserve in the Goldfield Ranch subdivision. Those land and development characteristics on the eastern portion do not accurately reflect the land characteristics and the best future uses of the lands west of the Preserve DMP.

The changes set out in Exhibit A (and numerous others) would unfairly inhibit development proposals on the Nation's 600 acres. Any proposed DMP submitted under the existing Area Plan would stand a much greater chance of success than a DMP submitted under the Draft Area Plan. For example, the existing DMP supports requests for increased densities of up to 1.0 dwelling unit per acre and provides policies for considering those requests.¹ The existing Area Plan even recognizes that densities greater than 1.0 du/acre will be proposed and provides policies for considering those requests.²

In contrast, the Draft Plan provides little guidance for any future development. It merely encourages that all residential development have densities no greater than those allowed by R190 zoning and discourages most commercial (See Exhibit A). Therefore, there will be relatively no standards upon which to evaluate future developments (if they would be entertained at all).

SOUND PLANNING SUPPORTS THE NATION'S REQUESTED CHANGES TO THE DRAFT AREA PLAN

In addition to the Nation's concerns regarding the decrease in the value of its land, the Nation believes that the Draft Area Plan has not been prepared as a future planning document. Rather, it is a restrictive document reflecting the existing land uses and does not provide realistic planning for future development on the Nation's 600 acres. The 600 acres are appropriate for the development suggested by the Nation.

¹ See e.g., Subsection I, Growth Guidance, page 85, Policy I-1, "Permit residential densities up to Rural Residential/High on fee simple lands east of the Verde River only if the associated infrastructure, public facility and service requirements are met and the improvements meet or exceed County guidelines as suggested in policies 1-4 and I-5 (emphasis added)." Policy I-2, "Support requests for increased density on the east side of the River up to a maximum of 1 dwelling unit per acre if a Development Master Plan is submitted; the total site area contains less than 75% hillside area; and if the baseline Hillside preservation standards for Rural-190 are met. In any event, if no or very little hillside areas exist on the site, a minimum of 30% of the site shall be retained in its natural state as an incentive for allowing the increased density (emphasis added).

² See Subsection H, Public Facilities and Utilities, Policy H-5, page 85, "Permit residential development that exceed one dwelling unit per acre only if adequate community water and sanitary sewer systems are provided (emphasis added)."

The Draft Area Plan states that the only growth opportunity for the entire revised area is within the approved Preserve DMP. The Nation objects to this wide reaching statement for numerous reasons, including the Nation's 600 acres have extensive direct access to the Beeline Highway and have more favorable topography for development. Given the 10 to 15 year planning cycle, this statement is not acceptable from a future land planning standpoint for the Nation's 600 acres. More appropriately, growth opportunities should be limited to the Preserve and those lands west of the Preserve.

I. RESIDENTIAL LAND USE

With regard to the Nation's request for a policy permitting up to two homes per acre (Large Lot Residential), that request is reasonable. Most significantly, the Nation can deliver urban infrastructure and services.³ Therefore, the current lack of existing services on the site is not a persuasive reason to deny this requested density for the 10-15 year planning horizon of the Draft Area Plan. Rather, the Draft Area Plan should state what other policies would provide guidance for such density, as is currently contained in the existing Area Plan.

You have correctly noted that the Nation's 600 acres are currently listed as rural residential/low in the existing Area Plan. However, numerous changes have occurred since 1995 which support increased density on the site. First, the Forest Service owned the land in 1995 and it had no interest in any increased density. The fact that the Forest Service listed the land for an exchange supports that the Forest Service expected development on the Nation's 600 acres. Next, the Nation purchased the land several years later knowing that the existing Area Plan was in place and future development at some point in the future could and would be forthcoming. Other changes include the increased population in the County, the near build out of the City of Fountain Hills, the enormous increase in the Rio and Tonto Verde areas to the North, and the additional residential and commercial development on the Nation's lands. These changes, along with the other reasons cited in the Nation's earlier comments (e.g., topography, direct access to the highway, adjacent to the higher density Preserve DMP, removed from the existing low density residential development on the east side of the planning area, etc.), support the Nation's request for a future planning policy for its 600 acres.

II. COMMERCIAL LAND USE

The Draft Area Plan would discourage commercial development except home-based businesses and equestrian facilities. This strong presumption against commercial development is inconsistent with the existing Area Plan, which recognizes that commercial development is permitted (See Exhibit A). Commercial uses "will be

³ With regard to water in particular, the Nation can use its surface water rights. These surface water rights are a replenishable source of water and would not: 1) interfere with other parties' water rights, 2) negatively affect existing or future homeowners at the Goldfield Ranch subdivision, or 3) negatively affect groundwater. Because of the Nation's water rights, its development would have zero impact on groundwater.

permitted” as a part of the planned development pattern under the existing Area Plan.⁴ Conversely, under the Draft Area Plan, the policy is to “Discourage commercial or industrial.” See Exhibit A for additional examples.

According to the Draft Area Plan, the projected population for the revised planning area is up to 7,000 persons and 56 acres of commercial land is needed to support this population. For the reasons detailed in its earlier comments, the Nation proposes a policy permitting a reasonable amount of commercial space on lands west of the Preserve and adjacent to the Beeline Highway (i.e., not to exceed 50 acres).

The Draft Area Plan currently states that there may be some potential for neighborhood retail or service development within the Preserve master planned communities. Good land planning practices dictate that this potential for retail, service and office development should also be identified for properties along transportation corridors, such as a portion of the Nation’s 600 acres adjacent to the Beeline Highway. Furthermore, if there is no commercial development to support the area, all residents will be forced to drive through the reservation to get basic services. This increased traffic will cause the precise problems on the Nation’s reservation that the current homeowners located in the revised planning area are trying to avoid.

COORDINATION BETWEEN THE PRESERVE DMP AND THE AREA PLAN

In addition to this Area Plan Update, there is an ongoing amendment to the Preserve DMP which is within the revised planning area. The Preserve lands are a large portion of the revised planning area. The results of each process will likely have affects on the other process for all parties involved. Without knowing the proposed final result of both actions, it is impossible competently respond to the other.

To illustrate this point, the Preserve amendment (and the existing DMP) places all of the high density residential development on the western portion of its property (adjacent to the Nation’s reservation, its 600 acres, and Greyhawk Development’s 80 acres). The Preserve’s proposed density adjacent to the 600 acres is as high as 2.01 homes per acre and lot sizes as small as 8,750 square feet. If the Draft Area Plan is not revised to permit higher densities (subject to certain policies, objectives, etc.) on the Nation’s 600 acres, the Nation would object to the placement of all of the high density next to the 600 acres and the reservation. Conversely, if higher densities are permitted on the 600 acres, then we would be less likely to object to that configuration because like uses and densities would be adjacent. Also, until the residential densities for the Preserve are finally decided, it is difficult to assess the appropriate amount of commercial space. Therefore, the DMP Amendment and the Area Plan Update must be reviewed and approved by the Planning and Zoning Commission and the Board of Supervisors concurrently.

⁴ Existing Area Plan, Land Use Plan, pages 98-99.

REGULATORY LANGUAGE

The language of Objectives in Draft #2 has been revised to include "regulatory" type language, rather than policy or planning language. For example, Objective ED1.1, Executive Summary, Economic Development, has been changed from "Promote" rural, low density residential land uses to "Utilize" rural, low density residential land uses. These changes are not appropriate for a planning document.

Please contact us if you have any questions.

Very truly yours,



Mark A. Horvath
Attorney at Law




Cc: Brian McCabe/Maricopa County Planning and Development
John Verdugo/Maricopa County Planning and Development
Tom Bruckman/Goldfield Ranch Homeowners Association
Virgil Dutton/Goldfield Ranch Homeowners Association
Tom Parsons/Goldfield Ranch Homeowners Association
Joe Sedlmayer/Goldfield Ranch Homeowners Association
Bob Waldo/Goldfield Ranch Homeowners Association
Don Kile/Goldfield Preserve Development
Wendy Riddell/Berry & Damore
Randy Haines/Goldfield Ranch Concerned Citizens Group
Raphael Bear, President, Fort McDowell Yavapai Nation
Orlando Moreno, Fort McDowell Yavapai Nation Enterprises
Drew Ryce/Fort McDowell Yavapai Nation
Brain Baehr/Grayhawk Development
Don Stapley, Maricopa County Board of Supervisors
Max Masel, Chair of the Maricopa County Planning and Zoning Commission
Larry Lazarus, Lazarus & Associates

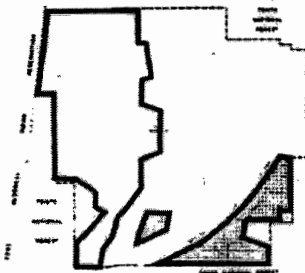
Enc: (1)

Prepared for
**FOUNTAIN FOOTHILLS
 LIMITED PARTNERSHIP**
 10701 E. Camelback
 Scottsdale, Arizona 85251
 (602) 998-7144

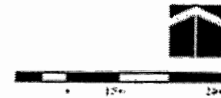
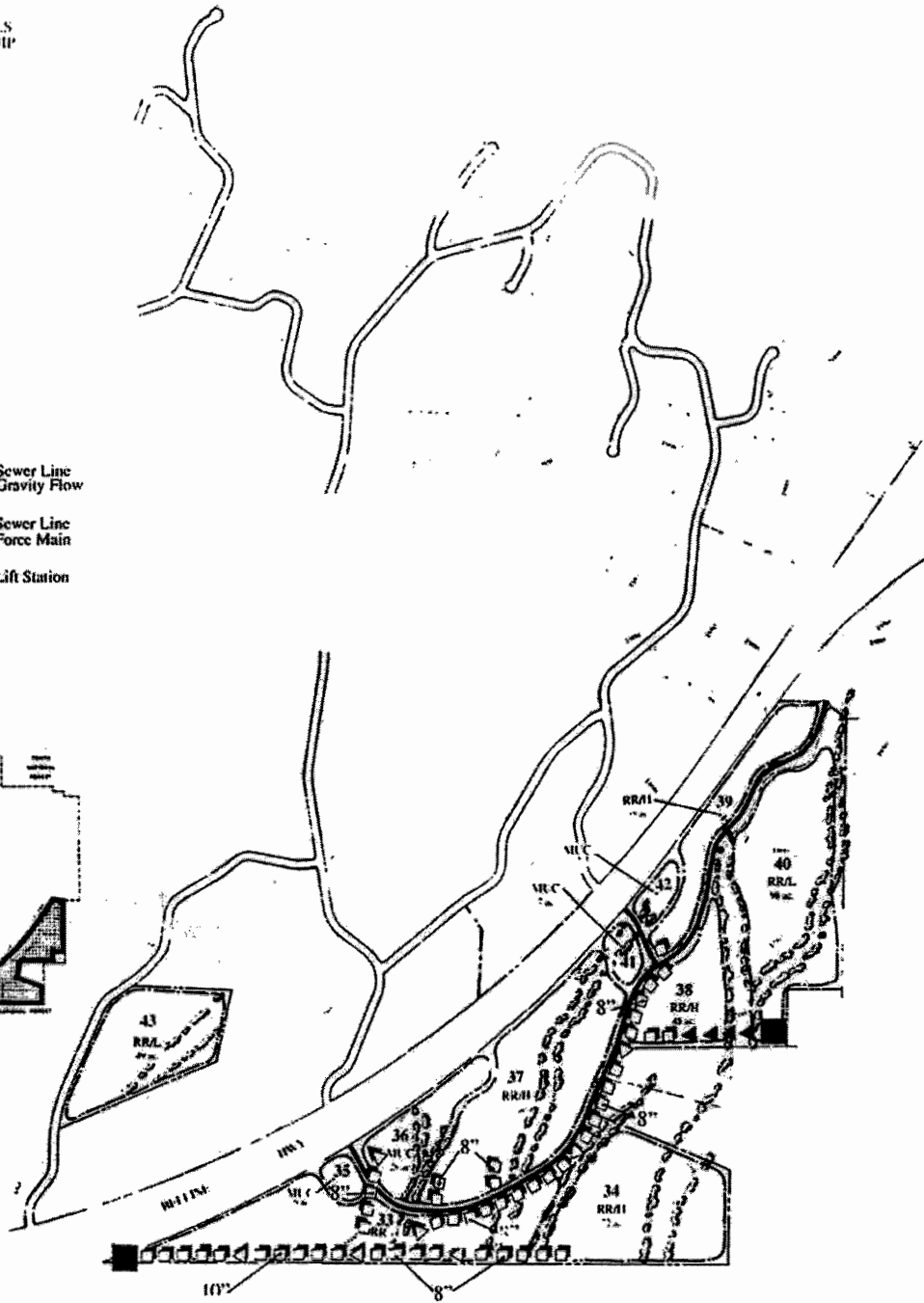
Prepared by
**CORNVOYER
 HEDGECOCK**
 2425 East Camelback
 Fourth Floor
 Phoenix, Arizona 85016
 (602) 361-4848

LEGEND

-  Sewer Line Gravity Flow
-  Sewer Line Force Main
-  Lift Station



KEY MAP



Revised July 25, 1994
 Revised September 30, 1994

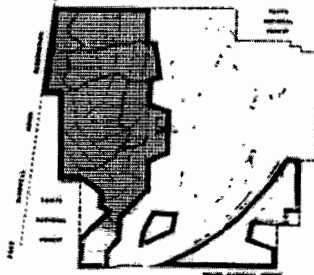
The Preserve

MARICOPA COUNTY ARIZONA

SEWER SYSTEM
 Exhibit C





Prepared by:
**FOUNTAIN FOOTHILLS
 LIMITED PARTNERSHIP**
 6910 Fifth Avenue
 Scottsdale, Arizona 85251
 (602) 949-7144

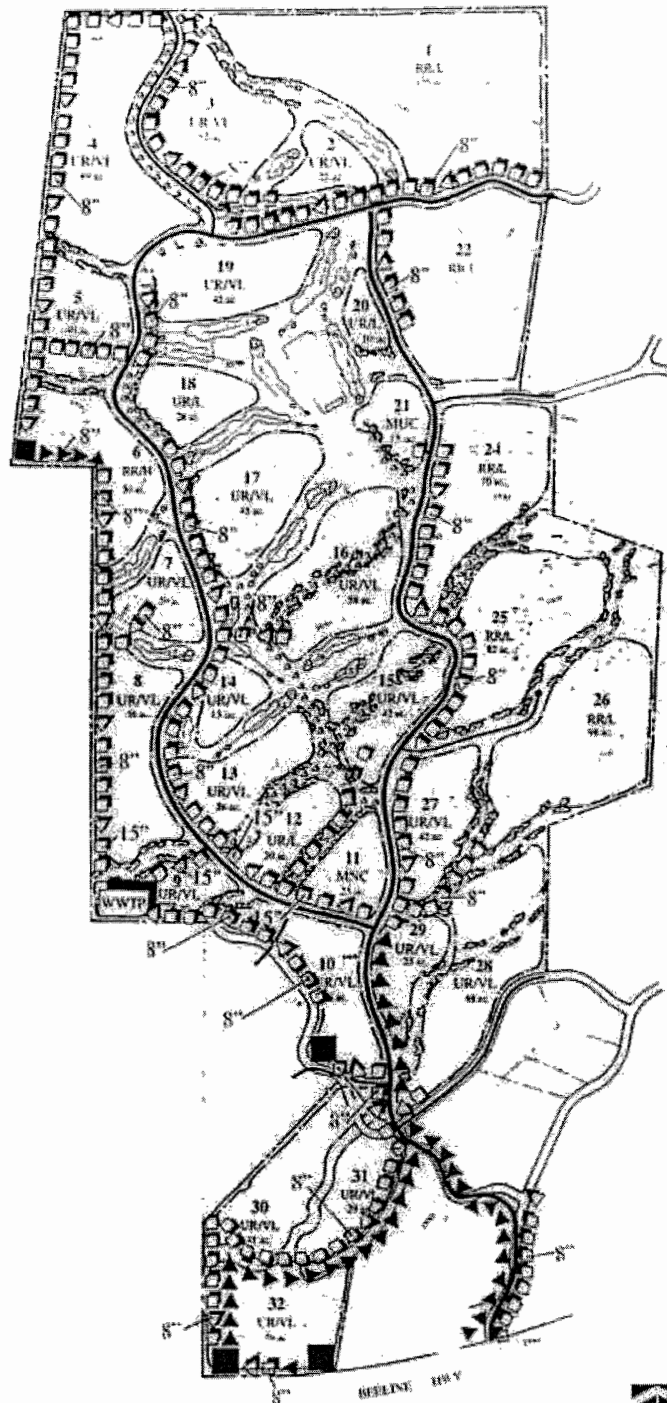
Prepared for:
**CORNOYER
 HEDRICK**
 2425 East Camelback
 Fourth Floor
 Phoenix, Arizona 85016
 (602) 381-4848



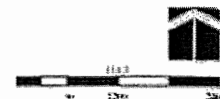
KEY MAP

LEGEND

-  Sewer Line Gravity Flow
-  Sewer Line Force Main
-  Lift Station
-  Wastewater Treatment Plant



SEE SHEET TWO



December 29, 1992
 Revised April 29, 1993
 Revised July 25, 1994
 Revised September 30, 1994

The Preserve

MARICOPA COUNTY, ARIZONA

SEWER SYSTEM

Exhibit C

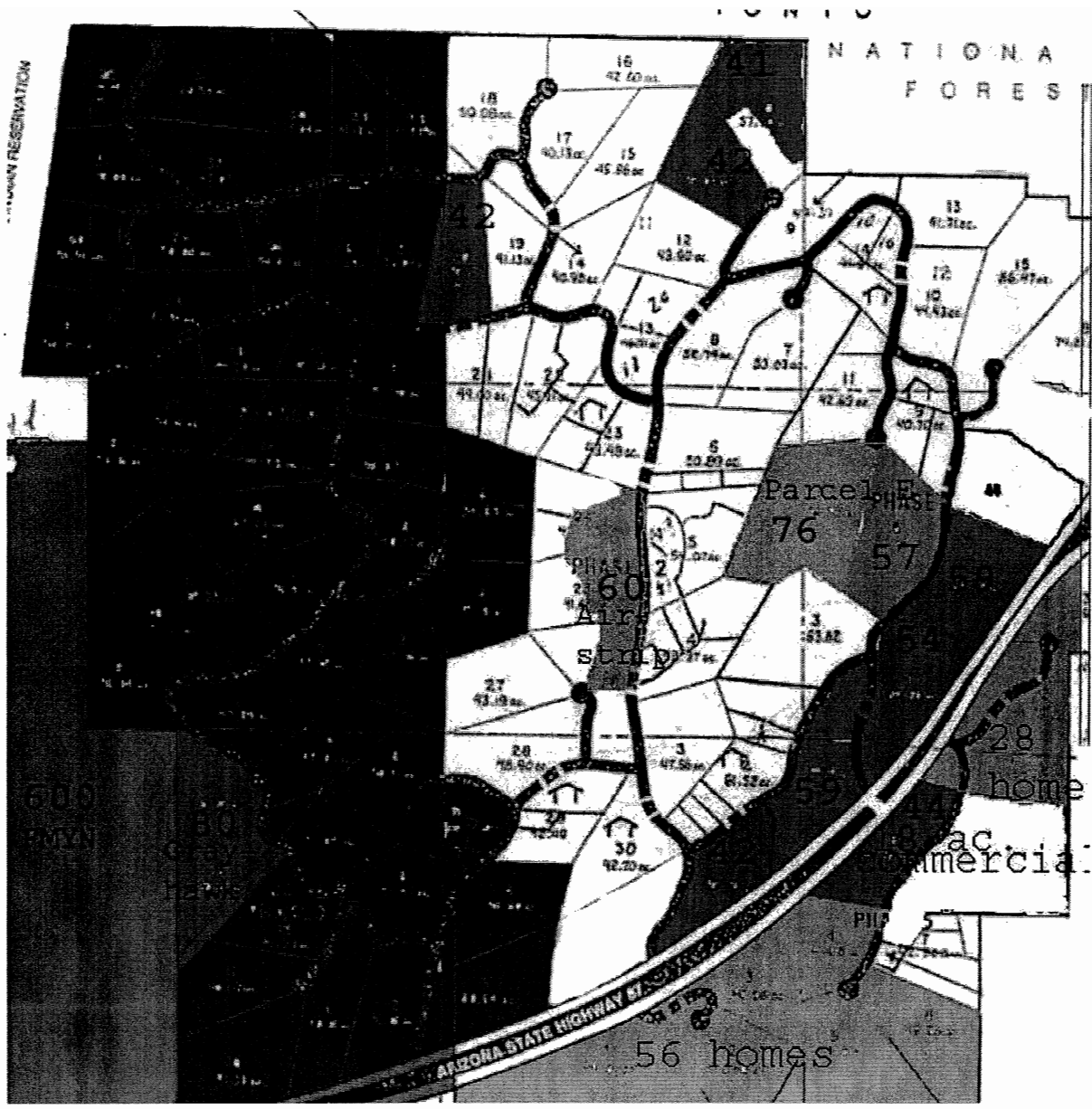
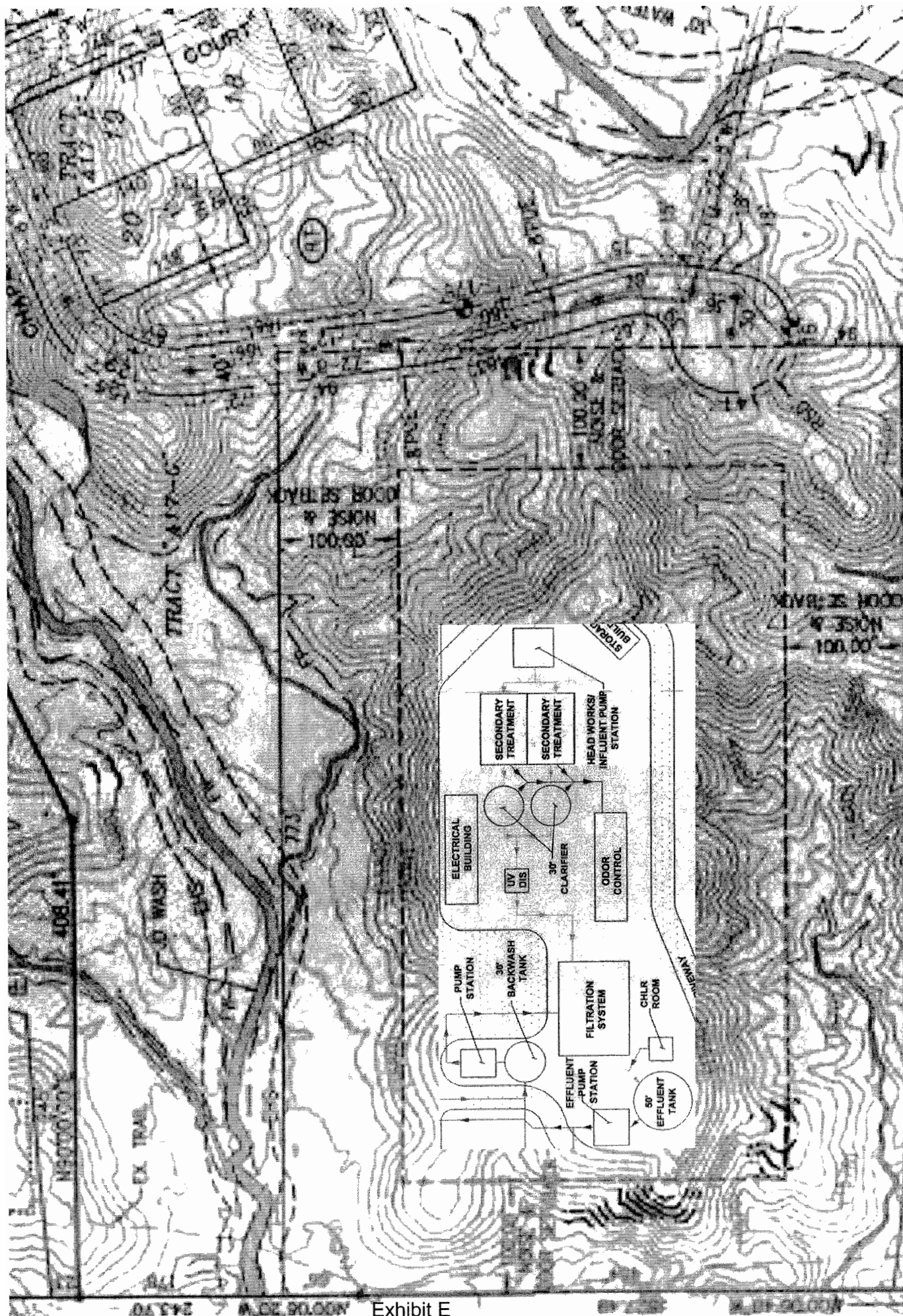


Exhibit D



Julie Hoffman

From: S. Splettstoesser [ssplettstoesser@yahoo.com]
Sent: Monday, April 07, 2008 6:49 PM
To: Julie Hoffman
Subject: The Preserve meeting Wed.

One more question as per the Preserve proposed system.
How will this sewer system be monitored and how often.
Will we be able to get a report of the inspections?
Thanks again,
Suzanne Splettstoesser

You rock. That's why Blockbuster's offering you one month of Blockbuster Total Access, No Cost.

4/8/2008

Julie Hoffman

From: S. Splettstoesser [ssplettstoesser@yahoo.com]
Sent: Monday, April 07, 2008 6:33 PM
To: Julie Hoffman
Subject: The Preserve meeting on Wed.

April 7, 2008

Dear Ms. Hoffman,

I have a concern that I would like to share about the proposed sewer system for the Preserve.

One concern is the fact there is no alternative space provided on the plans. Even when we do a private septic system we must have an alternate space in case ours may fail. This system for the Preserve is a relatively new concept and I see no area left for leakage or any other problem that could arise and necessitate another area being used after contamination of one area. I don't see flash flooding being addressed and in researching this that should be a major concern too because of the parasite control that may necessitate, especially when so close to washes.

Is this site to be a high powered reverse osmosis and then hydrogen peroxide and ultra violet light followed by a filter of sand and rock? Sand and rock may be a good extra measure for sanitation but it could also leave an area that is not effective in sealing in case of groundwater infiltration. A cohesive soil may be better when washes are so close.

It may be essential to explore the function of this sewer system with regard to drainage of groundwater during or after heavy rains. This site is at a very vulnerable location. Overuse of the system or a seam leak or any leak could cause serious damage to a local river.

Has a separate piping for gray water been explored? Since this is all new development, it would be possible to put that into the requirements for building all the houses there. It would be excellent

to use for any outside irrigation.

Thank you for taking the time to address my questions.

Suzanne Splettstoesser

Goldfield Resident

13745 N. Goldfield Rd.

Ft. McDowell, AZ 85264

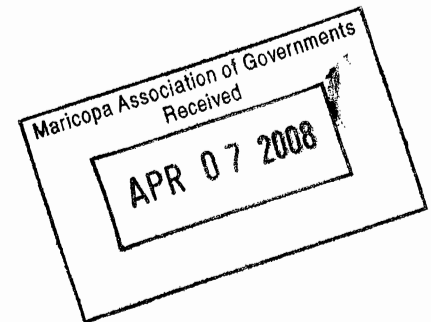
480-471-5804

You rock. That's why Blockbuster's offering you one month of Blockbuster Total Access, No Cost.

April 4, 2008

Via U.S. Mail to:

Mr. and Mrs. Randy Haines
12140 North Sin Vacas Trail
Ft. McDowell, Arizona 85264



Re: MAG 208/ The Preserve at Goldfield Ranch

Dear Mr. and Mrs. Haines:

As a lawyer, Mr. Haines, I am certain that you recognize that accusing another lawyer of violating ethical rules is a serious allegation. Such an allegation should only be made with complete knowledge and understanding of the facts. Absent such knowledge, making that allegation is itself inappropriate.

The draft minutes of the Water Quality Advisory Committee Hearing of March 20, 2008 state that Chair Klingler inquired about the parcel to the west of Goldfield Preserve that was not included in Parcels A or B, but on the same side of the ridge line. I replied that there are two parcels to the west of the Goldfield Preserve; one owned by the Fort McDowell Yavapai Nation and an 80-acre parcel owned by Grayhawk. The draft minutes state "She (Wendy Riddell) mentioned that the 80-acre property is currently planned for five acres or larger. Ms. Riddell stated that the Goldfield Preserve is not aware of any development plans and they so speak with Grayhawk with some regularity. She added that to the best of their knowledge, Grayhawk has not filed any development plans for the site, other than it is zoned one house per five acres, which is roughly 18 houses." This answer was not a "material misstatement of fact" as you allege, but rather the truth. Grayhawk has not filed with the County any development plans for the site.

While you concede in your letter that "development plans" is not a "defined legal status", it is a misstatement for you to go on to suggest that a General Plan (defined in the County as an Area Plan) or even Master Plans (specific Area Plans) for areas that have laid dormant and undeveloped for over a decade qualify as "development plans". Perhaps you are unaware that the County, by statute, has Area Plans for the entire County, and that this is a guiding policy document rather than an actual "development plan." There are also Master Plans that have been approved in the County, and that these subsequently require rezoning actions and site planning approvals from the County before "development" can occur. Your correspondence further states that we must consider "the plain meaning of those words." Here, I agree. I have practiced law in Arizona since 1998. My area of emphasis is land use. My good faith understanding of what was asked of me at the hearing was whether there are any

Mr. and Mrs. Randy Haines

April 4, 2008

Page 3

approved plans to actually develop the property, such as an application submitted to the County's Planning Department. There are none.

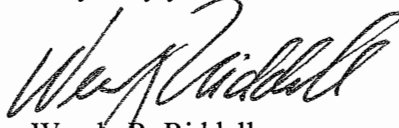
To date, other than a few single family lots, no applications to develop property in Goldfield Ranch outside of the The Preserve are pending.

Regarding the specifics of your claim, you assert that I was aware of "development plans" for Grayhawk's property located on the west side of The Preserve service area because Grayhawk was excluded from the recently approved update to the Area Plan, ergo they must have "development plans". You refer to the Grayhawk letter dated March 6, 2007 (the "Subject Letter"). As I understand it, in an effort to secure their exclusion, Grayhawk sent the Subject Letter and conceptual bubble plan to County planning staff demonstrating why they did not want to be included in the update. You have conceded that the Subject Letter describes Grayhawk's "conceptual development plan." Indeed, the bubble plan attached to the Subject Letter reads "Illustrative Development Plan." None of these plans were ever submitted to the County's planning staff as applications. To date, Grayhawk has not submitted an application to Maricopa County to develop their property. Therefore, my good faith belief was, and is, that there is no "development plan" in existence. It would be wholly inappropriate for me to speculate as to Grayhawk's development intentions, if any, based upon their request for an exclusion from an Area Plan.

You further assert that because a portion of the Development Master Plan approved in 1995 (some thirteen years ago), remains in effect on a site separated by both a State Highway and significant topography from the proposed wastewater service area, I should have been aware of "development plans". Again, to my knowledge, no applications to rezone or otherwise develop this property have been filed with the County other than a few lots subject to the Master Plan that have been developed with custom homes.

Mr. Haines, we have been meeting with you since my client first went into escrow on this site over three years ago. Though we have not always agreed, I have always treated you respectfully, honorably, and ethically. I simply ask that you show me the same professional and personal courtesy. I take my professional integrity very seriously. We have confirmed with our firm's outside ethics counsel, Lynda C. Shely, that I have fully complied with any obligations under E.R. 3.3.

Very truly yours,



Wendy R. Riddell

WRR

Mr. and Mrs. Randy Haines

April 4, 2008

Page 3

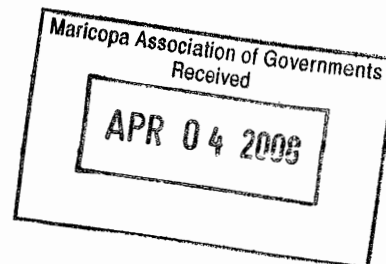
cc: Mr. Kevin Chadwick
Roger Klingler
Supervisor Don Stapley
Dr. Carole Klopatek
Julie Hoffman, MAG
Lynda C. Shely, Esq.
Patricia Perna
Don Kile

GOLDFIELD CONCERNED CITIZENS' ASSOCIATION

Kathy Haines, President
12140 N. Sin Vacas Trail, Ft. McDowell AZ 85264
Email: haines@agilebroadband.com Phone: (480) 980-4661

April 2, 2008

Ms. Wendy R. Riddell, Esq.
Berry & Damore, LLC
6750 E. Camelback Road Suite 100
Scottsdale, Az. 85251



Re: The Preserve at Goldfield Ranch

Dear Ms. Riddell:

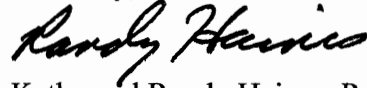
At the March 20 meeting of the MAG Water Quality Advisory Committee, you told the committee that we had notice of your MAG Small Plant Approval process because we attended a meeting of the Technical Advisory Committee of the Maricopa Planning and Development Department on February 5. Your statement was disingenuous, at best. You know the only reference to your MAG process made at that TAC meeting was that Goldfield Preserve Development had so far failed to obtain its MAG permit. That comment gave us no notice of: 1) the inadequate capacity of the plant; 2) your client's intent to inject the treated sewage into the aquifer; 3) your client's reliance on an alleged confining clay layer to protect the Verde River from being polluted by this plant; 4) the fact that your client had not made the required analysis of whether the plant should be designed to accommodate future development of nearby parcels; or, most importantly, 5) the fact that MAG's 208 Plan required you to ascertain the views of neighboring landowners, which you had never done, or 6) that there was a scheduled hearing on your application, at which public participation was welcome. Indeed, your client has gone out of his way to convey the false message to neighboring landowners that they have no role to play in the planning and design of this plant, and that in effect it is none of their business, because there would never be any opportunity for any neighboring land development to "shirttail" on the wastewater treatment for the Preserve.

And when we did find out about the March 20 hearing before the Water Quality Advisory Committee, I sent you an email on the morning of March 18 asking you to send me a copy of your application **by email**, and also asking two questions about the process; see attached email. You never responded to my email nor answered my questions, and you did not send me a copy of your application by email. Instead, you **mailed** a copy, under a cover letter dated two days later – the day of the hearing – but not postmarked until the day after the hearing.

Although we disagree with your apparent view that neighboring landowners have to ask to be notified, please be on notice that this is that request. Henceforth, please provide the

Concerned Citizens, at this address, with contemporaneous notice and copies of every communication that your client, and/or any of its agents, has with any governmental (or public utility) office or official that has any bearing on the development of the Preserve at Goldfield Ranch. This is intended to include, but not be limited to, any applications filed, any information supplied in connection with any application, any comments received with respect to any application, and any scheduling of any hearings.

Sincerely,

A handwritten signature in black ink that reads "Randy Haines". The signature is written in a cursive, flowing style.

Kathy and Randy Haines, Pres. and Sec'y
Goldfield Concerned Citizens' Association

cc: Mr. Roger Klingler
Ms. Julie Hoffman
Mr. Jason Stephens

From: haines@agilebroadband.com
Subject: MAG 208 approval for Preserve
Date: Tue, March 18, 2008 9:21 am
To: "Riddell, Wendy" <wr@berrydamore.com>

We learned at the February TAC meeting that the Preserve has not obtained approval of its MAG 208 application, which apparently is some kind of permit necessary for wastewater treatment plant. Could you please:

- 1) Send me by email a copy of the application for that permit;
- 2) Describe where you are in that process and when you anticipate it to be concluded; and
- 3) Describe what the problem has been in getting that permit issued?

Thanks for your response.

Randy Haines, Secretary
Goldfield Concerned Citizens Association

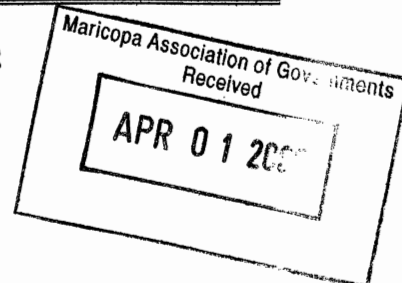
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GOLDFIELD CONCERNED CITIZENS' ASSOCIATION

Kathy Haines, President, Phone: 480 980 4661
12140 N. Sin Vacas Trail, Ft. McDowell AZ 85264

March 31, 2008

Ms. Wendy R. Riddell, Esq.
Berry & Damore, LLC
6750 E. Camelback Road Suite 100
Scottsdale, Az. 85251



Re: MAG 208 Small Projects Review of The Preserve at Goldfield Ranch

Dear Ms. Riddell:

Arizona Ethical Rule 3.3 requires you to correct the false statements of material fact that you made to the MAG Water Quality Advisory Committee on March 20.

In response to a question from Committee Chairman Roger Klingler, you stated that you had no knowledge of any development plans for the large parcels located near the Preserve in Goldfield Ranch. That statement was materially false, and known by you to be false, in at least two significant respects.

1. You Have Knowledge of Development Plans for Two Nearby Parcels. First, you do have knowledge of the development plans of Grayhawk Development for its 80 acre parcel immediately adjacent to the Preserve. I enclose a letter to Maricopa County Planning and Development Department dated March 6, 2007, from Grayhawk Development. It describes Grayhawk's "conceptual development plan" for those 80 acres, including residential development of up to two homes per acre. You had knowledge of that development plan because you are shown as a "cc via email" on that letter.

Second, you also have knowledge of the 1995 Development Master Plan that remains in effect for the 125 acres lying between Preserve Parcels C and D. Your own DMP Amendment for the Preserve dated July 2, 2007, specifically recognizes that "Included in the 1995 DMP are 125 acres of land within portions of Parcels 37, 39, 40, 42, and all of Parcels 38 and 41 located south of SR-87, consisting of mixed-use commercial and residential uses." DMP Amendment at 10. Your DMP Amendment also states that "the DMP Amendment does not amend any portion of these 125 acres," and "The 1995 DMP is valid and enforceable today." *Id.*

Indeed, you not only have knowledge of the commercial zoning under the 1995 DMP, but you argued to the Maricopa Planning and Zoning Commission that it should be maintained, and you *opposed* our efforts to terminate that plan in early 2007. Your efforts to preserve the commercial plans for those 17.6 acres as part of the 1995 DMP were successful.

Of course we recognize neither of these parcels is yet zoned for such development. But “development plan” is not a defined legal status, and both of these are undeniably development plans within the plain meaning of those words. Grayhawk’s letter describes its plan as a “conceptual development plan,” and the plan for the 125 acres between Parcels C and D is part of a “Development Master Plan.” It was a false statement for you to tell the Committee that you had no knowledge of such development plans.

And the misleading effect of your false statement was exacerbated both by its timing and by another misleading statement you made. You made the claim to having no knowledge of any development plans only in your rebuttal comments, knowing that no one would have an opportunity to correct your misstatement. In such circumstances, a lawyer has a greater ethical duty to “inform the tribunal of all material facts . . . whether or not the facts are adverse.” *Cf.* Ethical Rule 3.3(d). And you stated that the recently adopted Goldfield Area Plan helps ensure development will be limited to residential development no more dense than one house per 4.36 acres, despite knowing that the Grayhawk parcel was expressly excluded from the scope of that area plan because of Grayhawk’s plans for much higher density.

2. Your Misstatements of Fact Were Very Material. The existence of both of these development plans is very material to the issues before the Committee. Table 4.53 of the MAG 208 Areawide Water Quality Management Plan requires the applicant for small plant approval to identify whether certain areas lend themselves to being included in the service area, whether nearby areas should be sewered for water quality or economic reasons, and whether nearby areas wish to join the proposed plant. We noted both in our letter of March 20 and in our oral presentation that your application failed to address any of those issues, except to reference 5-acre parcels already developed with septic systems. The point of the question, and your answer, was apparently to demonstrate that there was no need to address such issues because there were no nearby areas for which any development plans exist. Your denial of knowledge of any such plans was highly material to those issues.

More significantly, both of these large tracts of land would have to be sewered under the existing development plans. Grayhawk’s plan calls to up to two homes per acre, and Maricopa County requires sewer for homes on ½ acre lots. The 1995 DMP calls for 17.6 acres to be developed for commercial uses, and Maricopa County requires commercial property to be sewered.

The existence of these development plans was also especially material because they would exceed the capacity of the water treatment plant that is being proposed. Just the 160 homes on Grayhawk’s adjacent 80 acres would generate 51,200 gpd, which would exceed the 0.4 mgd capacity of the planned facility.

3. Ethical Rule 3.3 Requires Remediation.

Finally, the ethical rule makes clear that when a lawyer “has offered material evidence and comes to know of its falsity, the lawyer shall take reasonable remedial measures.” Ethical Rule 3.3(a)(4). We believe this requires you to disclose to the Water Quality Advisory

Committee why you made the knowingly false statement to the Committee; all of the facts you or your client could ascertain by questioning the owners of the nearby parcels about their development plans; an analysis of whether such plans would require sewers; and an explanation of why it does or does not make economic or water quality sense to design your treatment plant to accommodate those plans.

Sincerely,

A handwritten signature in black ink that reads "Randy Haines". The signature is written in a cursive, flowing style.

Kathy and Randy Haines
Goldfield Concerned Citizens Association

cc: Mr. Kevin Chadwick, P.E.
Roger Klingler
Hon. Don Stapley
Dr. Carole Klopatek
Julie Hoffman, MAG



March 6, 2007

Matt Holm
Principal Planner
Maricopa County Planning and Development Department
501 North 44th Street, Suite 200
Phoenix, AZ 85008

Re: Goldfield Ranch, Phase III, Lots 13 and 14

Dear Matt:

Grayhawk Development is the developer for Goldfield Ranch, Phase III, Lots 13 and 14, which are owned by Four Peaks Holdings, LLC. The site area is approximately 80 acres and is currently zoned Rural-190. Grayhawk is creating a conceptual development plan for this area. We request that our plan be incorporated into the Maricopa County Eye To The Future 2020 Goldfield Area Plan that is currently being updated by the County Planning and Development Department. We propose that the future land use for Lots 13 and 14 to be designated as 1-2 units per acre. Please reference the enclosed illustrative development plan.

- **Location**

Goldfield Ranch is located on State Route 87 approximately five miles east of Fountain Hills. Lots 13 and 14 of Phase III are each 40 acre parcels located on the western edge of the Goldfield Ranch community. The 600± acres adjacent to the west are privately owned by the Fort McDowell Yavapai Nation and were acquired in the 1990s through a land exchange with the United States Forest Service. The adjacent property to the north, east and southeast is approximately 1,600± acres known as The Preserve at Goldfield Ranch and is owned by Goldfield Preserve Development, LLC. This owner recently submitted a request to amend the Development Master Plan that was approved for this property in 1995. Please reference the attached location map.

- **History**

Since 1993, the mission of Grayhawk Development has been to create unique projects that enhance the quality of life for our residents while at the same time honoring the intrinsic value of the natural Sonoran Desert environment and the history of the land. With focus on this purpose, Grayhawk has developed master planned communities of uncompromising quality, beauty and sensitivity.

Grayhawk Scottsdale is a 1,600 acre master-planned community that embraces a broad mix of housing types, two championship golf courses, numerous neighborhood parks, 31 miles of multi-use trails, schools, retail shopping, dining, medical campus, office and commercial development with neighborhoods that people want to call home. The distinctive landscape and architectural palette of this community complements and respects the natural desert environment.

Whisper Rock Estates/Sevano Village is a 1,000 acre community in north Scottsdale comprising two golf courses and 400 units consisting of townhomes, villas, semi-custom homes and custom home sites ranging from one to almost five acres. This extreme low density environment offers timeless natural beauty and allows the neighborhoods to blend seamlessly with the desert surroundings.

Grayhawk Development is familiar with the Goldfield Ranch area. We became enticed with the rural character and charm of the area in 1997 when we first had the opportunity to purchase the Preserve at Goldfield Ranch. Grayhawk's planning and engineering team spent well over two years evaluating the Preserve property and is extremely familiar with the entire site. While Grayhawk was not successful in acquiring this property, we did purchase Lots 13 and 14 in 2000.

Since 1993, Grayhawk Development and their representatives have made it a priority to communicate with the local neighbors and neighborhood organizations regarding any of their development plans.

- **Request**

Our various development plans for the 80 acres in Lots 13 and 14 results in 1-2 units per acre with a minimum of 20 to 25 acres (30%) of open space. We request that our plan be incorporated into the current update for the Goldfield Area Plan and reflect the land use for Lots 13 and 14 as 1-2 units per acre. Access to the 80 acres will be via existing dedicated roadways shared with the Preserve development and other Goldfield Ranch property owners. We believe our plan is consistent with the goals, objectives and policies identified in the Goldfield Area Plan, Draft 1 dated January 2007. We are committed to an efficient land development plan that is compatible with adjacent land uses, sensitive to the natural desert environment and that sustains the rural character, charm and lifestyle of the area.

- **Environmental Conditions That Support Goldfield Area Plan Goals, Objectives and Policies**

Topography and Slope Conditions. The topography for the general Goldfield Ranch area slopes from the northeast to the southwest where Phase III, Lots 13 and 14 are located. The elevation ranges from a high of 1,800 + in the northwest to 1,500± feet in the southwest portion. The area is characterized as undulating terrain with short, steep slopes in the northeast and shallower slopes to the southwest. The flatter terrain and lower elevations of 1,550 – 1,600 in Lots 13 and 14 provide more land area to accommodate 1-2 units per acre. The adjacent properties

surrounding Lots 13 and 14 to the west, north, east and southeast have similar topography and would also support 1-2 units per acre.

Vegetation. The Goldfield Ranch site is typical of the Sonoran Desert environment. **However, approximately 75% of the Lot 13 and 14 property was badly burned in a fire in the 1990s.** The Sonoran Desert plant palette features a diverse mix of desert trees, shrubs, ground covers and cacti. The remaining native plants on Lots 13 and 14 consist of small trees including Palo Verde, Catclaw and Mesquite; shrubs such as Creosote, Bursage, and Saltbush; and cacti including Saguaro, Barrel, Hedgehog, Prickly Pear and Cholla. The smaller shrubs and cacti are growing back fairly well in the years since the fire, while the larger trees and cacti are still struggling. Our development plan of 1-2 units per acre allows for significant revegetation of natural area open spaces and wash corridor areas. Grayhawk Development has expertise in revegetation and restoration of the natural desert environment through the course of construction at both Whisper Rock/Sevano Village and Grayhawk Scottsdale and will use this knowledge to restore the burned areas with a native indigenous plant palette.

Open Space. The existing wash corridors through Lots 13 and 14 will remain as open space and will be enhanced with native desert landscaping to create a riparian habitat. Enhancing the wash corridor landscaping provides an opportunity to extend open space connections to the adjacent properties. The plan for 1-2 units per acre incorporates approximately 20-25 acres (30%) of meaningful open space on the property.

Major Washes. Grayhawk Development and their planning and engineering team have carefully mapped the 404 washes and flood planes through the 80 acre site. The 1-2 units per acre development will allow for storm water to be conveyed through the existing washes on the property.

Lighting. The development plan for Lots 13 and 14 will incorporate design standards that minimize lighting to respect and preserve the dark, night skies. Street lights are not proposed for the property. Lighting will be restricted to low landscape light and wall sconces to provide safety lighting at night.

We believe that the existing and proposed entitlements adjacent to the three sides of the property (The Preserve DMP) as well as the environmental conditions outlined above substantiate our proposed development of 1-2 units per acre on Goldfield Ranch, Parcel III, Lots 13 and 14. We ask that the County Planning and Development Department support the change in the land use designation on these parcels to 1-2 units per acre and include our request in the Goldfield Area Plan update report.

Thank you for your assistance in this matter. Please contact us if you have any questions.

Sincerely,

GRAYHAWK DEVELOPMENT

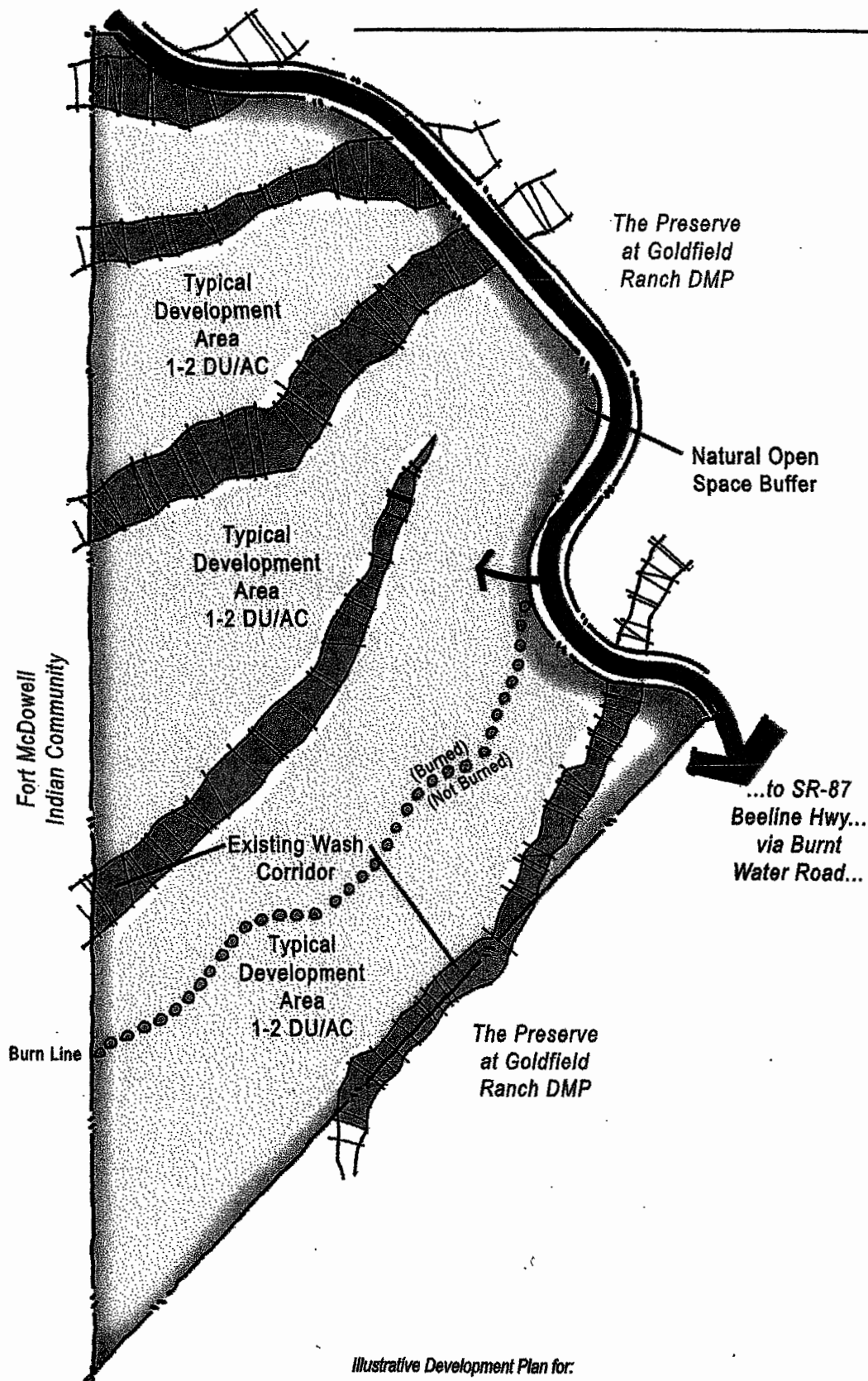


Brian Baehr
Vice President

Enclosures

Cc via email: John Verdugo/Maricopa County Planning and Development, w/enclosures
Brian McCabe/Maricopa County Planning and Development, w/enclosures
Orlando Moreno/Fort McDowell Yavapai Nation, w/enclosures
Mark Horvath/Fort McDowell Yavapai Nation, w/enclosures
Randy Haines/Goldfield Ranch Concerned Citizens Group, w/enclosures
Tom Bruckman/Goldfield Ranch Homeowners Association, w/enclosures
Virgil Dutton/Goldfield Ranch Homeowners Association, w/enclosures
Tom Parsons/Goldfield Ranch Homeowners Association, w/enclosures
Joe Sedlmayer/Goldfield Ranch Homeowners Association, w/enclosures
Bob Waldo/Goldfield Ranch Homeowners Association, w/enclosures
Don Kile/Goldfield Preserve Development, LLC, w/enclosures
Wendy Riddell/Berry & Damore, LLC, w/enclosures

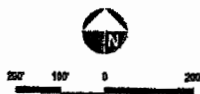
\\ghp1\users\ppennu\work\Goldfield Ranch\misc\letter to matt holm.03.05.07.doc



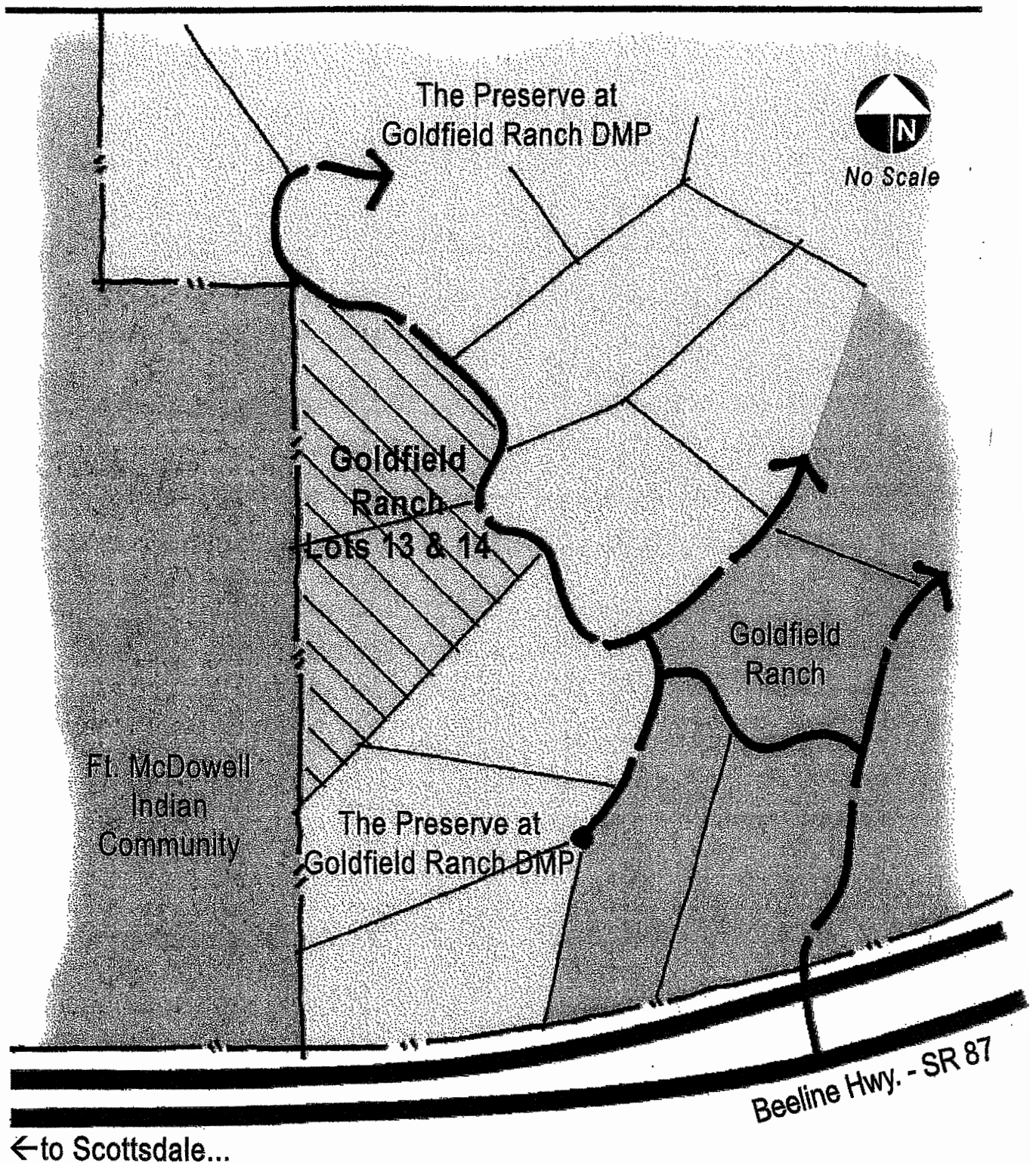
Illustrative Development Plan for:

GOLDFIELD RANCH PHASE III - LOTS 13 & 14

TERRACE ASSOCIATES, P.C.
community planning
landscape architecture
www.terraceassociates.com



Grayhawk Development
c/o Mr. Brian Buehler
7277 E. Doubletree Ranch Rd., #100
Scottsdale, Arizona 85261
(480) 958-2621
www.grayhawkdevelopment.com



Location Map for
GOLDFIELD RANCH PHASE III - LOTS 13 & 14

The Preserve

GOLDFIELD RANCH

MAG 208 Water Quality Management Plan
Small Plant Review and Approval

for

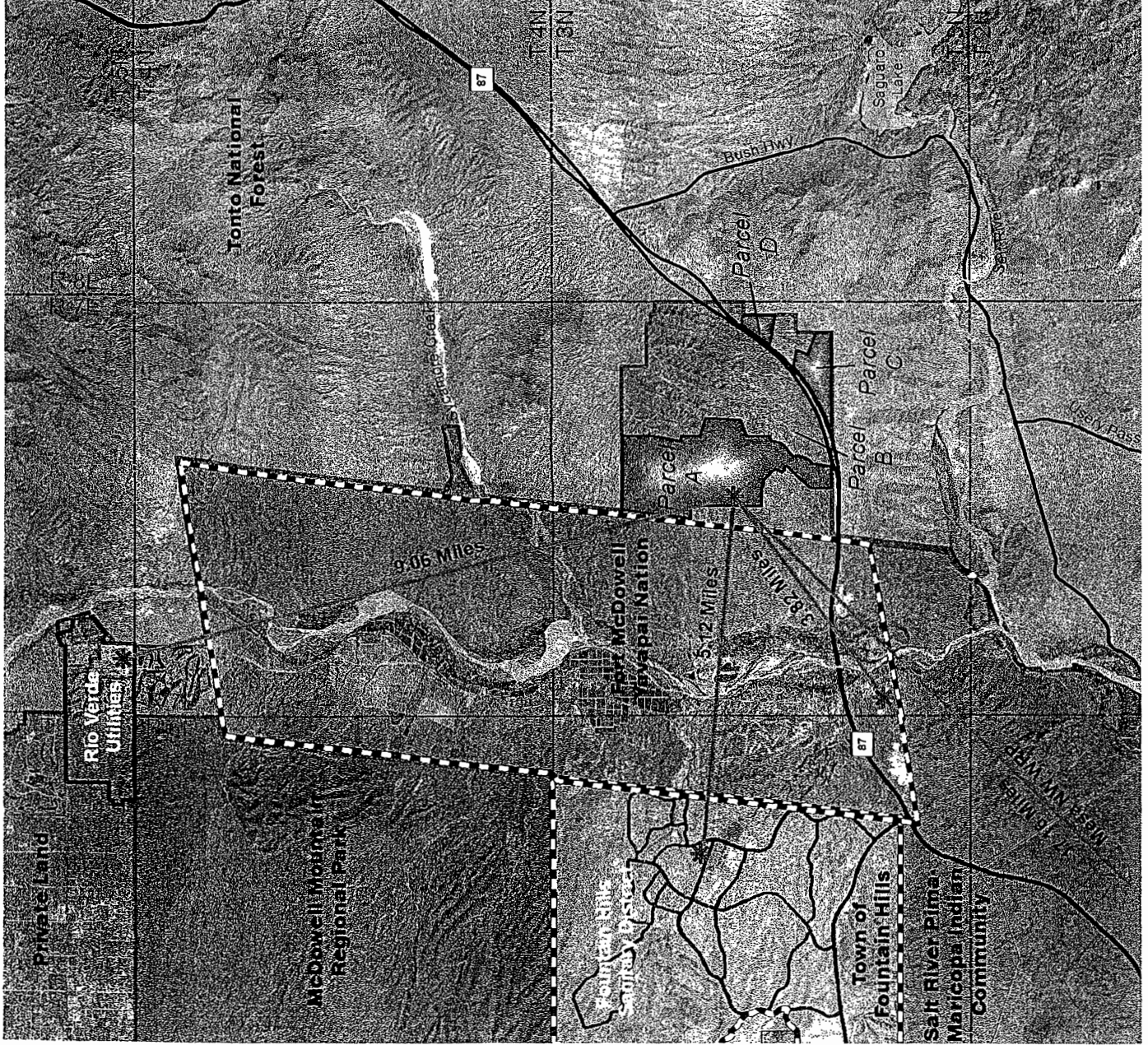
The Preserve at Goldfield Ranch Water Reclamation Facility

March 20, 2008



//// WORKING TOGETHER FOR A BETTER TOMORROW

Proximity Map

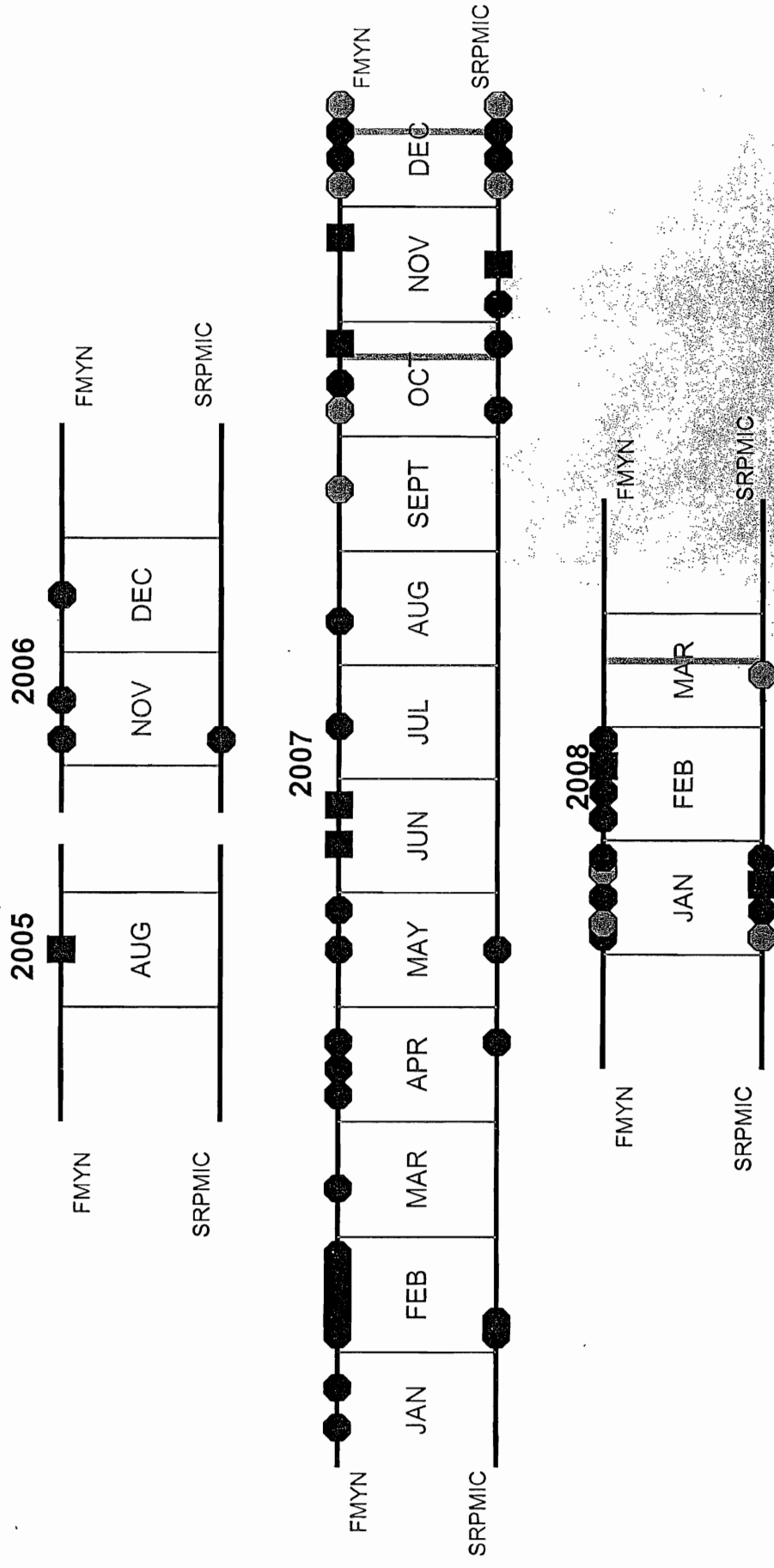


DMP Comparison Chart

	1995	2007
Density	2,032 du 0.92 du/ac	1,000 du 0.5 du/ac
Commercial	90 acres	None
Golf Course	190 acres	None
Water Budget	2,127 acre-feet per year	732 acre-feet per year
Traffic	34,150 daily trips	6,912 daily trips

Responsible development

Timeline of Tribal Communication



Meeting
 Correspondence prepared by Goldfield
 Correspondence received by Goldfield
 WQAC Hearing

Tribal Communication

2005 – 10/22/2007

Date	From	To	Description
8/19/2005	Goldfield	FMYN	Telephone conversation - request for meeting
8/25/2005			Meeting with FMYN
11/17/2006	Goldfield	FMYN/SRPMIC	DMP correspondence
11/21/2006	Goldfield	FMYN	Telephone conversation
11/22/2006	Goldfield	FMYN	Land use plan correspondence
12/5/2006	Goldfield	FMYN	Telephone conversation
12/6/2006	Goldfield	FMYN	DMP Amendment correspondence
1/26/2007	Goldfield	FMYN	Master Water Report correspondence
1/29/2007	Goldfield	FMYN	Master Water and Wastewater Master Plan correspondence
2/8/2007	Goldfield	FMYN/SRPMIC	Neighborhood open house invitation
2/10/2007	Goldfield	FMYN/SRPMIC	Goldfield monthly newsletter
2/21/2007	Goldfield	FMYN	Meeting with Dr. Carole Klopatek
2/21/2007	Goldfield		Goldfield Ranch Homeowner's Association meeting
2/26/2007	Goldfield	FMYN	Master Water Plan correspondence
2/28/2007	Goldfield		Neighborhood open house
3/1/2007	Goldfield	FMYN	Follow up telephone conference regarding Water Master Plan
3/8/2007	Goldfield	FMYN	Follow up telephone conference regarding Water Master Plan
3/16/2007	Goldfield		Goldfield monthly newsletter
4/4/2007	Goldfield	FMYN	DMP second submittal correspondence
4/9/2007	Goldfield	FMYN	Provided hard copy of second submittal of DMP
4/12/2007	Goldfield	FMYN/SRPMIC	Goldfield monthly newsletter

Tribal Communication

2005 – 10/22/2007 (continued)

Date	From	To	Description
5/14/2007	Goldfield	FMYN	Transmittal of Draft 208 Plan
5/29/2007	Goldfield	FMYN/SRPMIC	Neighborhood open house invitation
6/11/2007	Goldfield		Neighborhood open house
6/27/2007	Goldfield		Neighborhood open meeting
7/18/2007	Goldfield	FMYN	Transmittal of third submittal of DMP
8/15/2007	Goldfield	FMYN	Transmittal of archaeological report
9/25/2007	FMYN	Goldfield	Letter indicating no comments at this time
10/2/2007	FMYN	MCESD	Comments from FMYN
10/8/2007	Goldfield	FMYN	Response to comments
10/9/2007	Goldfield	SRPMIC	Transmittal of Draft 208 Plan to SRPMIC
10/10/2007			Meeting with FMYN
10/22/2007			WQAC Meeting

Tribal Communication

10/23/2007 – 12/21/2007

Date	From	To	Description
10/30/2007	Goldfield	SRPMIC	Offer to meet
11/19/2007			Meeting w/ SRPMIC
11/20/2007	Goldfield	SRPMIC	Confirmation of 11/19/07 meeting
11/28/2007			Meeting with FMYN Tribal Council
12/4/2007	SRPMIC	MAG	Comments from SRPMIC (2 parts)
12/5/2007	FMYN	MAG	Report of 11/28/07 meeting
12/5/2007	Goldfield	FMYN	Transmittal of 12/4/07 CMX letter to MAG
12/4/2007	Goldfield	MAG	Supplemental materials requested
Undated	SRPMIC	Goldfield	Request for additional information
12/13/2007	Goldfield	MAG	Response to 12/4/07 SRPMIC comments
12/17/2007	FMYN	MAG	Comments from FMYN
12/20/2007	SRPMIC	MAG	Letter of concerns
12/21/2007			Second WQAC Meeting

Tribal Communication

12/22/2007 – 3/20/2008

Date	From	To	Description
1/11/2008	SRPMIC	Goldfield	Preliminary comments from SRPMIC
1/15/2008	Goldfield	FMYN	Transmittal of zoning and pre-plat applications
1/17/2008	Goldfield	SRPMIC	Plan for January meeting
1/17/2008	FMYN	Goldfield	Request for meeting
1/18/2008	Goldfield	FMYN	Response to comments and request for meeting
1/28/2008	FMYN	Goldfield	Request for meeting
1/29/2008			Meeting with SRPMIC
1/30/2008	Goldfield	FMYN	Request for meeting
1/30/2008	Goldfield	SRPMIC	1/29/08 meeting summary
2/11/2008	Goldfield	FMYN	Request for meeting
2/13/2008	Goldfield	FMYN	Request for meeting and list of documents provided
2/27/2008			Meeting with FMYN
2/28/2008	Goldfield	FMYN	2/27/08 meeting summary and response to comments
3/10/2008	SRPMIC	MAG	Memorandum of concerns
3/17/2008	SRPMIC	Goldfield	Letter of concerns
3/20/2008			Third WQAC Meeting

Responsive Modifications

- Comment: Parcel B and additional offsite parcels should be included in service area
- Response:
 - Increase in service area from 1,680 acres to 1,902 acres
 - Population served of 3,283 persons
 - Maximum WRF capacity of 0.4 MGD sufficient



Responsive Modifications

- Comment: Reflect language provided in the DMP Amendment related to reuse, where feasible
- Response:
 - To the maximum extent feasible, irrigation water supplied for common and open space areas will be supplied by treated effluent by build out of the development
 - Reuse of treated effluent will be pursuant to the terms and conditions of an ADEQ Reuse Permit

Groundwater Management Act

Safe Yield by 2025

[A] groundwater management goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area. ARS §45-561(12).

*Responsible development
dictates recharge*

Responsive Modifications

- Comment: Address inconsistencies between 208 Application and other submittals
- Response: Application modified to ensure consistency

Document	Gross Area (acres)	Dwelling Units	Population	Average Day Flow (MGD)
MAG 208 Plan Amendment (October 2007)	1,679.6 (Parcel A only)	983 (with potential spa/resort)	3,146	0.392 (based on 100 gpcd* and gross acreage)
Master Wastewater Report Amendment (January 2008)	1,902.1 (Parcels A & B and offsite areas)	1,026 (with potential spa/resort)	3,283	0.309 (based on 80 gpcd* and net acreage)
MAG 208 Plan Amendment (March 2008)	1,902.1 (Parcels A & B and offsite areas)	1,026 (with potential spa/resort)	3,283	0.367 (based on 100 gpcd* and net acreage)

* 80 gallons per capita per day (gpcd) used for pipeline design per AAC

* 100 gpcd used for treatment plant design per County requirements

Responsive Modifications

- Comment: Operation and maintenance costs are grossly underestimated
- Response:
 - Increased operation and maintenance cost range from \$150,000 – \$200,000 to \$250,000 – \$300,000 annually
 - Based on review with other operators and suppliers

208 Small Plant Criteria for Technical Sufficiency

Section 4.5.2(2) – Outside of Municipal Planning Area:

To be approved for construction, a small wastewater treatment plant (2.0 MGD ultimate capacity or less) not otherwise mentioned in the MAG 208 Plan and located outside a Municipal Small Plant Planning Area must:

- 1. Have the review and comment of any municipality whose Small Plant Planning Area is within three miles of the proposed plant location or service area;*
- 2. Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants;*
- 3. Be consistent with State and County regulations and other requirements;*
- 4. Be otherwise consistent with the MAG 208 Plan; and,*
- 5. Be evaluated and approved, or modified by Maricopa County Environmental Services Department (MCESD).*

The Preserve

at

GOLDFIELD RANCH

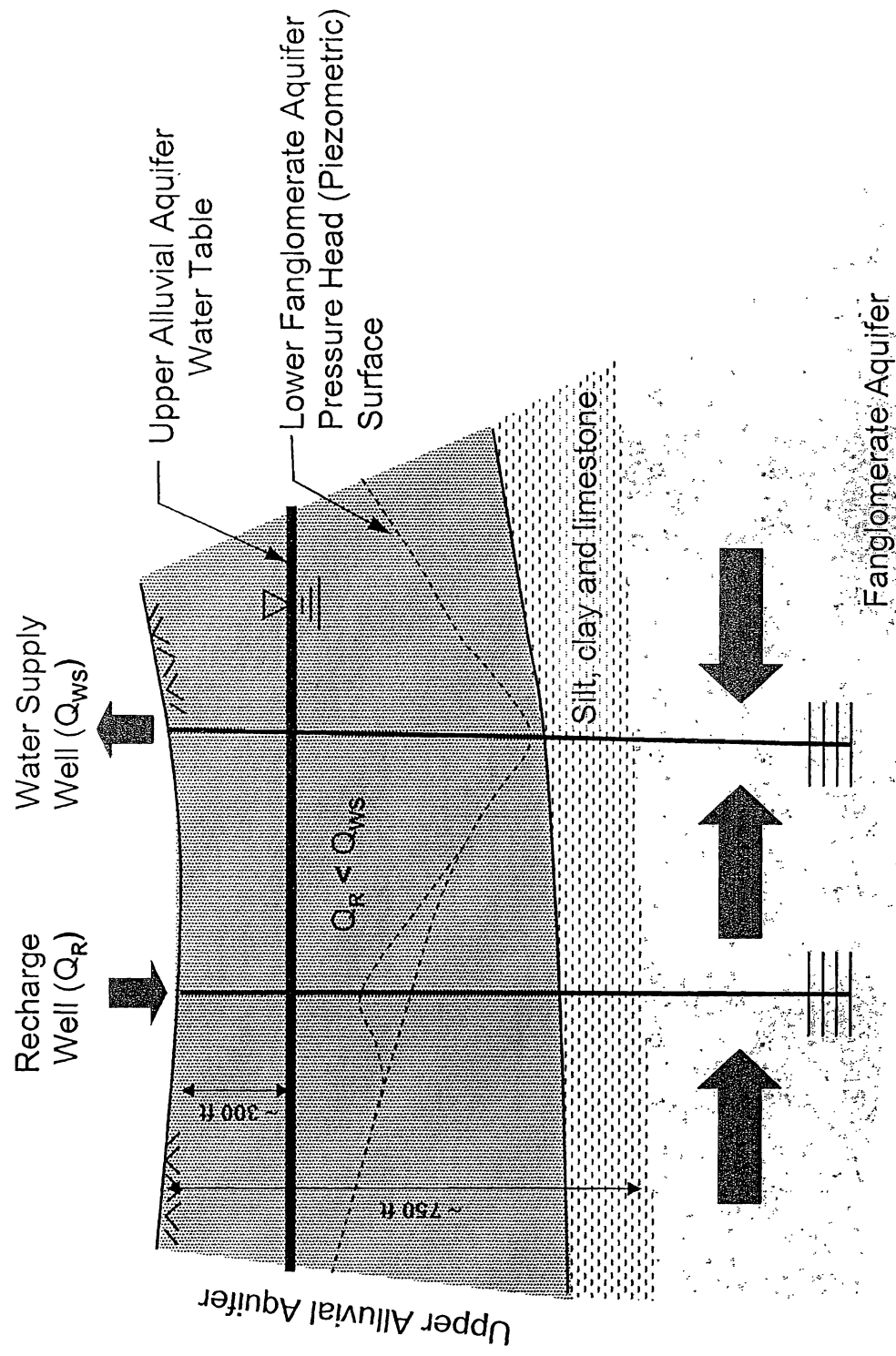


Southwest Ground-water
Consultants, Inc.

Key Concern: Water Quality

- Pursuant to the Arizona Administrative Code, WRF will be required to meet:
 - Best available demonstrated control technology (R18-9-B204)
 - A+ reclaimed water standards (R18-11-303)
 - Narrative aquifer water quality standards:
 - *A discharge shall not cause a pollutant to be present in an aquifer classified for a drinking water protected use in a concentration which endangers human health (AAC R18-11-405(A))*
 - *A discharge shall not cause a pollutant to be present in an aquifer which impairs existing or reasonably foreseeable uses of water in an aquifer (AAC R18-11-405(C))*
 - Numeric aquifer water quality standards (AAC R18-11-406)

Recharge and Production Aquifer Cross-Section



Well Locations

- Separation between recharge wells and water supply wells is approximately 1 mile
- A monitoring well will be installed down-gradient of the recharge wells



Groundwater Well Site



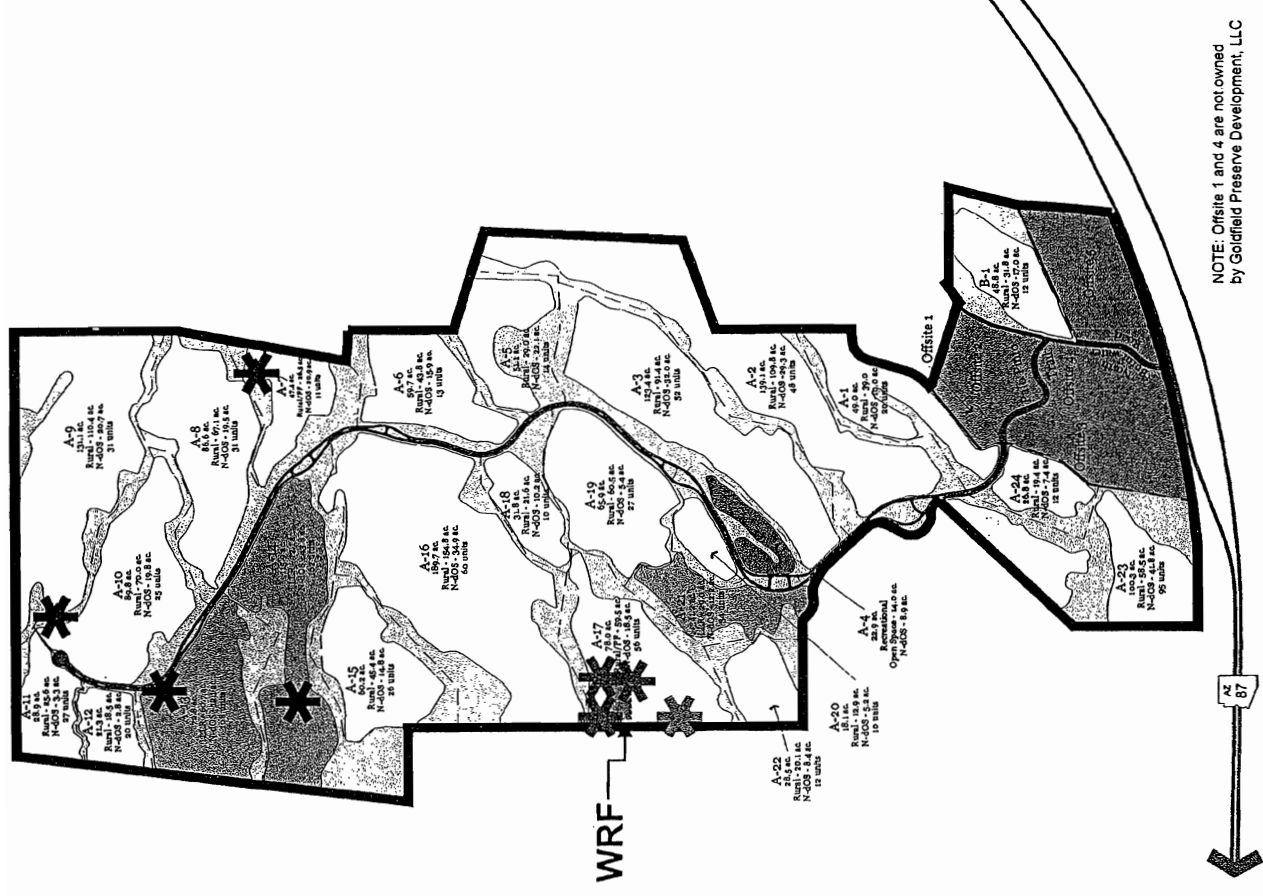
Monitoring Well Site



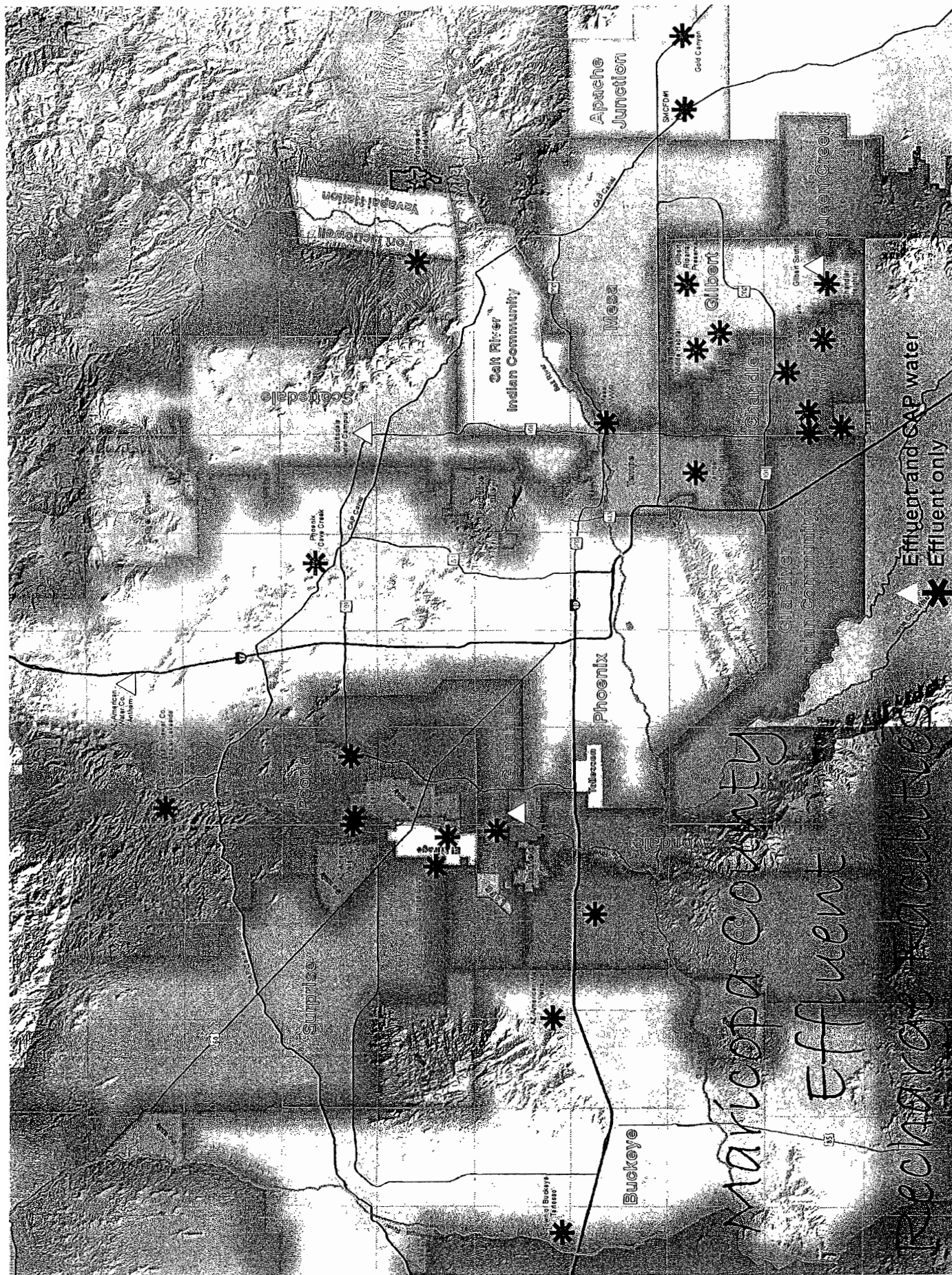
Recharge Well Site



Water Campus



NOTE: Offsite 1 and 4 are not owned by Goldfield Preserve Development, LLC



Tribal Comment and Response

- Comment: Facility financing
- Response:
 - Developer funds capital costs
 - County Improvement District (Maricopa County Board of Supervisors) established for ongoing operation and maintenance
 - User fees based on land ownership
 - Financial assurance letter, Consolidated Financial Report and independent auditor's assessment of report provided

Comparison of Financial Documentation in Approved 208 Plan Amendments

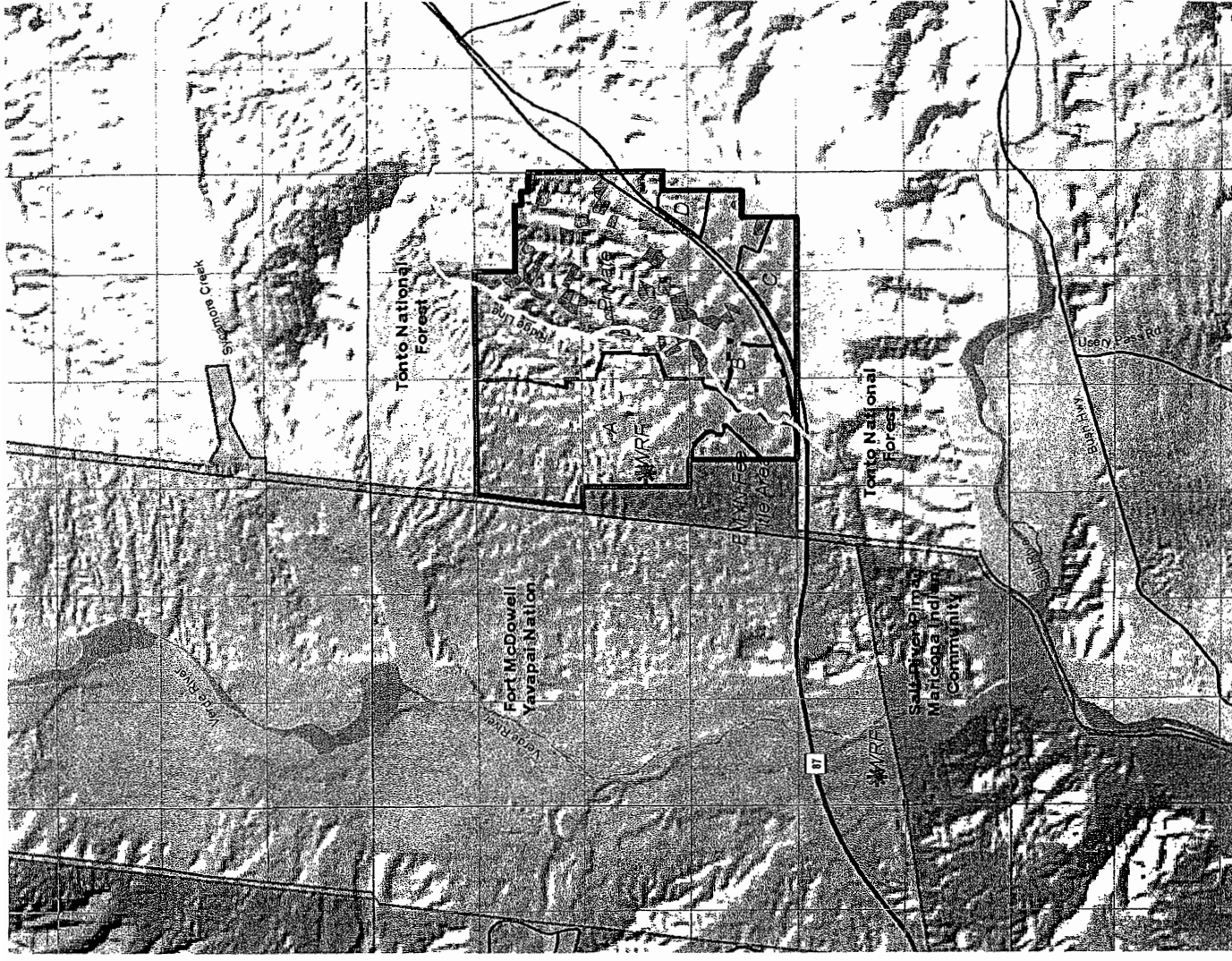
		Financial Statement Provided	Financial Backing by Municipality	WWTP Constructio n Funding	WWTP Operation Funding
2002	Quintero Golf and Country Club	No – Text statement indicating developer funding construction	Yes	Developer	City of Peoria (user fees)
2003	Desert Oasis	Yes, but not for entity funding WWTP – Equity Assets \$20,594,000	No	Developer	Arizona-American Water Company (user fees collected by City of Surprise)
2004	Ruth Fisher School WWTP	No – Letter from school indicating sufficient capital	No	Developer	Contracted Certified Operator
2006	Estates at Lakeside	Yes – Equity Assets \$100,000	Yes	Developer	City of Peoria (user fees)
2007	Scorpion Bay WWTP	Yes – Letter from M&I Bank funding 80% of construction	No	Developer	Owner (user fees)
2008	Preserve at Goldfield Ranch WRF	Yes – Equity Assets \$ 4,862,255	No	Developer	Contracted Certified Operator (user fees)

Comparison of Operation & Maintenance Costs in Approved 208 Plan Amendments

	MAG 208 Plan	WRF Capacity (MGD)	Annual Operation & Maintenance Cost	Cost per gallon
2002	Quintero Golf and Country Club	0.15	\$210 (cited in report as \$1.40/1,000 gallons)	\$0.0014
2003	Desert Oasis	0.35	Not Provided	Unknown
2004	Ruth Fisher School WWTP	0.042	\$93,260	\$0.0061
2006	Estates at Lakeside	0.12	Not Provided	Unknown
2007	Scorpion Bay WWTP	0.035	\$121,500 at Year 5 (buildout)	\$0.0095
2008	Preserve at Goldfield Ranch WRF	0.40	\$250,000-\$300,000	\$0.0017-\$0.0021
Note: The impact of different treatment technologies, location, terrain and presence of existing facilities are not factored into this comparison.				

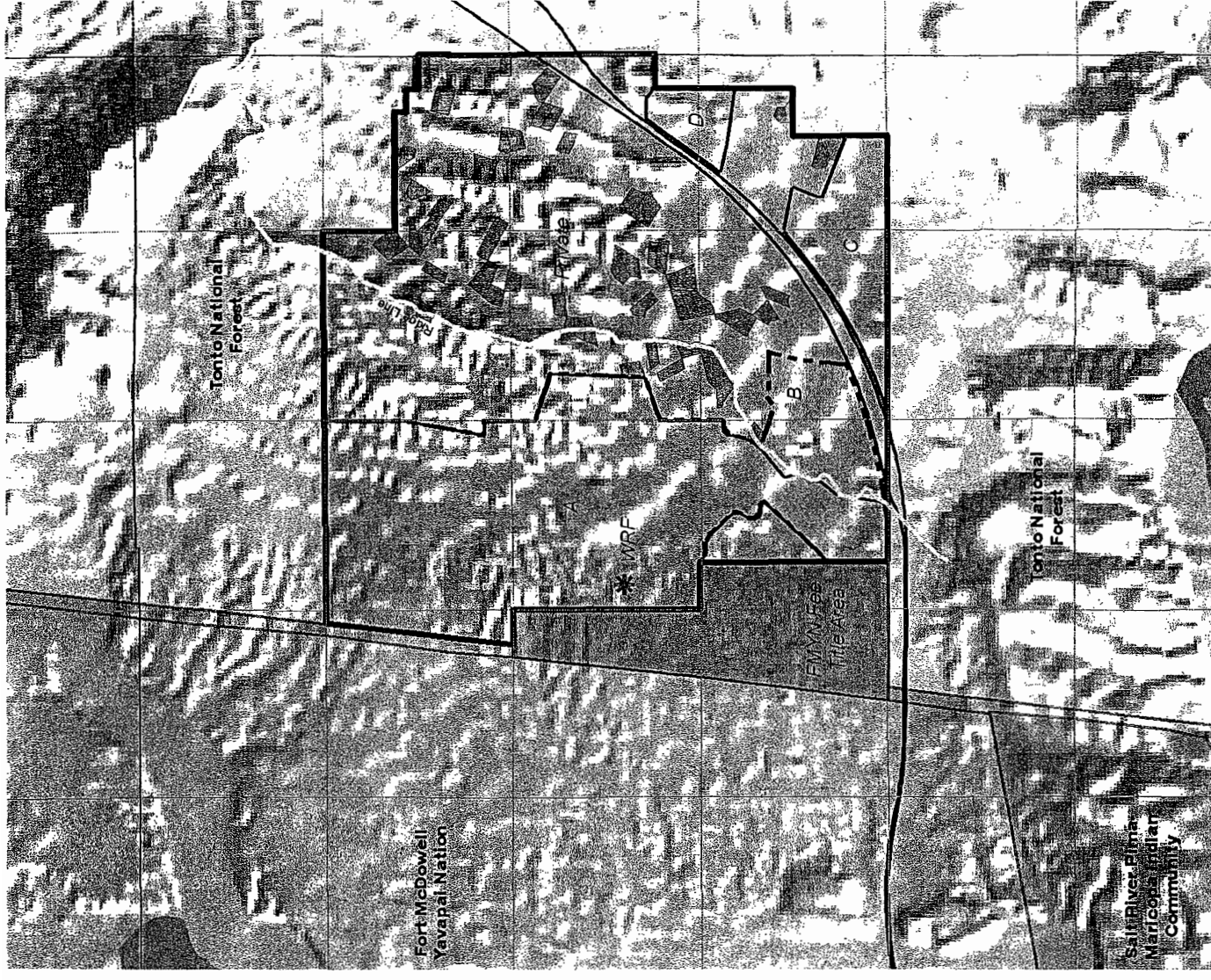
Tribal Comment and Response

- Comment: Include Parcels C and D
- Response:
 - Distance, topography, jurisdictional waters and State Route 87 constrain the feasibility of serving these parcels



Wastewater Service to Goldfield Ranch

- Topographic/hydrologic constraints
- Limited access to parcels does not coincide with natural fall of land
- Existing 5 acre or larger lots to east operate on septic systems
- Economically infeasible – separate property owners



Tribal Comment and Response

- Comment: No letter provided to FMYN to determine if we will adversely affect the operation or financial structure of their existing facility as a neighboring jurisdiction
- Response:
 - Letter and Application provided to FMYN on May 14, 2007
 - FMYN previously stated there was no desire to provide wastewater service to Goldfield
 - Connection to existing FMYN facility infeasible due to: distance, topography, land ownership, existing State Route 87 and Verde River

Tribal Comment and Response

- Comment: Provide emergency plan and redundancy
- Response:
 - Contingency plan to be provided under APP application pursuant to AAC R18-9-A204
 - Stormwater management (SWPPP) and Best Management Practices, such as erosion control, dust control, sediment control, and good housekeeping/ materials management
 - Monitoring and sampling plan
 - Reporting requirements
 - Catastrophic failure contained onsite
 - Redundancy factored into engineering design
 - Design operating capacity will be two times the average day flow
 - Redundant recharge wells
 - Standby generator

Tribal Comment and Response

- Comment: Groundwater mounding and biological clogging
- Response:
 - Mounding
 - Premise of USF permit is demonstration of no unreasonable harm
 - USF permit application requires mounding analysis to estimate area of potential impact
 - Quarterly measurement and reporting of water levels including alert levels
 - Mounding is an issue when water levels approach within 10 to 20 feet of the ground surface
 - Depth to groundwater is approximately 300 feet
 - Recharge will be to lower, confined aquifer
 - Biological clogging
 - Minimized through filtration, disinfection and proper operation and maintenance (including backwash)
 - Common practice – Fountain Hills, Scottsdale, Chandler, et al. recharge

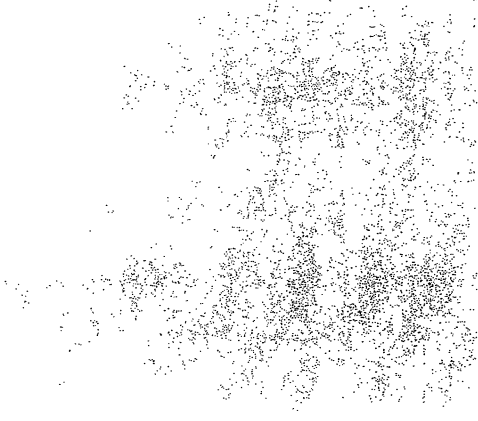
Tribal Comment and Response

- Comment: Provide detailed site plan
- Response:
 - Conceptual site plan provided
 - Engineered site plan to be provided at time of APP and USF permit applications



Tribal Comment and Response

- Comment: Apply for USF and APP permits
- Response:
 - Pre-application meetings are established with ADWR and ADEQ



Tribal Comment and Response

- Comment: Arizona Corporation Commission reports A Quality Water Company to be dissolved
- Response:
 - Arizona Corporation Commission filings will be rectified
 - County Improvement District (Maricopa County Board of Supervisors) has oversight

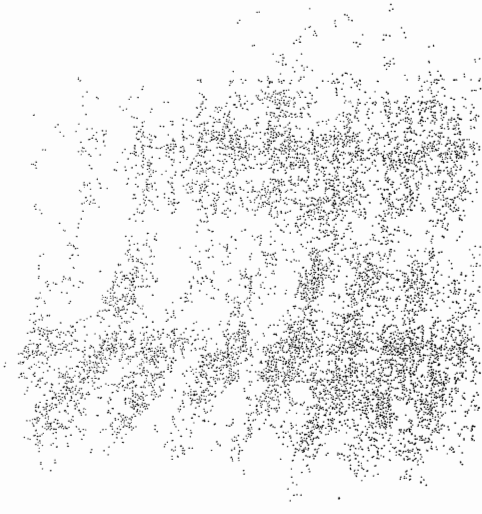
Tribal Comment and Response

- Comment: Provide additional hydrogeologic information
 - Additional information will be provided when available pursuant to the APP and USF



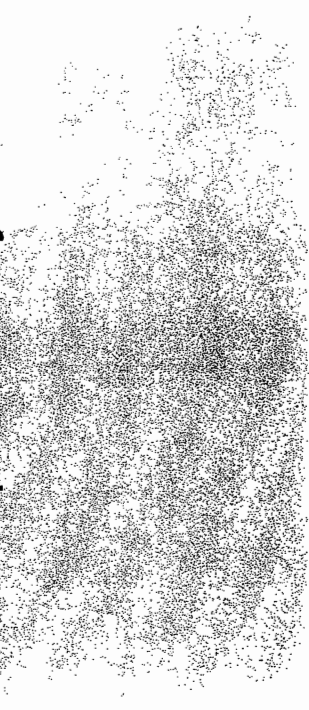
Tribal Comment and Response

- Comment: Groundwater level decline will affect Community's water resources
- Response:
 - Issue does not pertain to the 208 Application
 - Regulated by ADWR under the Groundwater Management Act which precludes impacts to adjacent wells or users



Tribal Comment and Response

- Comment: Stormwater and irrigation water may percolate into the upper/middle aquifer units and impact the Verde River
- Response:
 - Issue does not pertain to the 208 Application
 - Drainage and irrigation system designs provide for retention of stormwater flows
 - Reviewed and approved through Maricopa County



Tribal Comment and Response

- **Comment:** Report fails to assess if connection exists between Fountain Hills subbasin and the adjacent subbasins within the Phoenix AMA which may impact water quality
 - SRPMIC correspondence acknowledges “research based on information in ADWR reports, indicates that there is no connection.”
- **Response:**
 - Effluent to meet A+ water quality standards
 - Regulated under APP permit
 - Required ongoing monitoring and reporting to safeguard down-gradient users

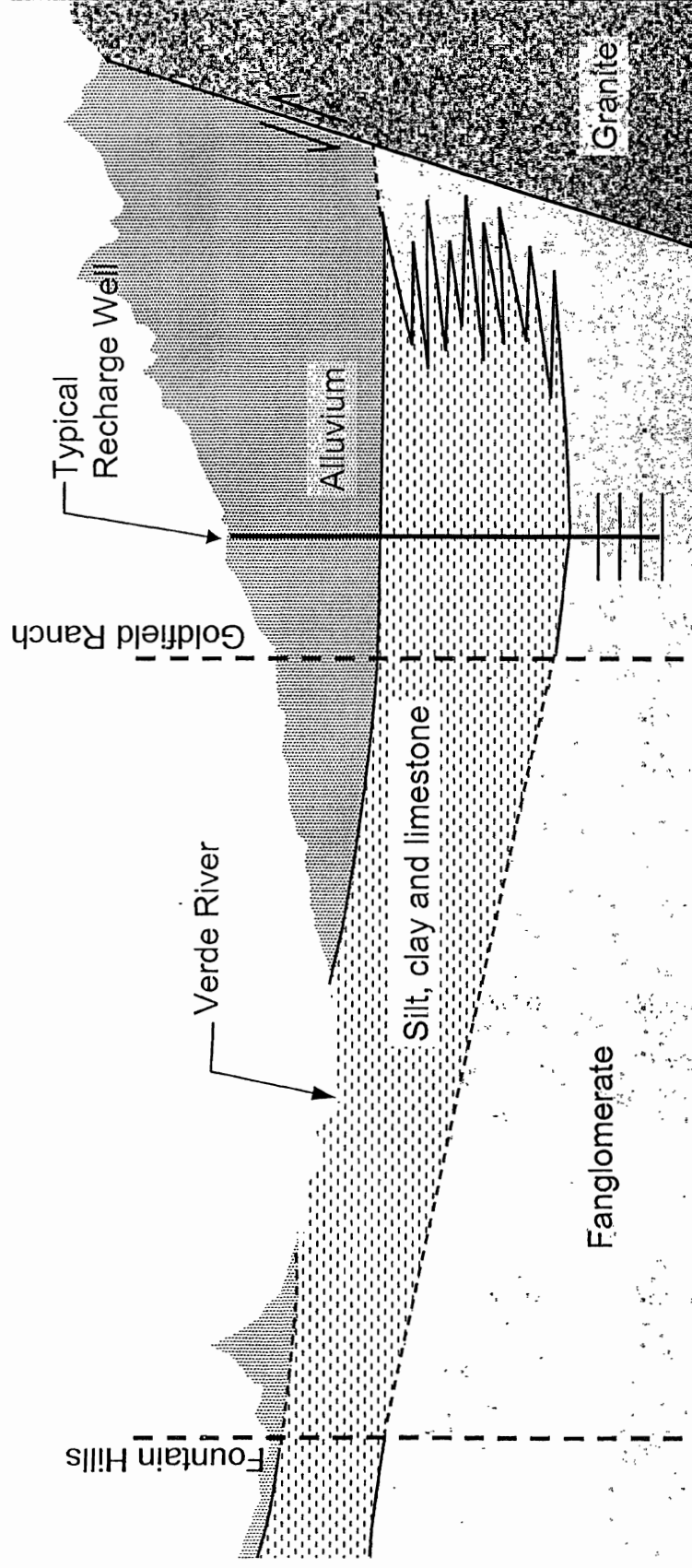
Tribal Comment and Response

- Comment: Desert nesting bald eagle may be impacted by micro-pharmaceuticals and other by-products in the Verde River
- Response:
 - Issue does not pertain to the 208 Application
 - No discharge to the Verde River
 - WRF will comply with all applicable regulations and standards

Tribal Comment and Response

- Comment: Clay layer does not confine the upper and lower aquifer and thins out at the edges
- Response:
 - Well tests performed on site show aquifer is confined
 - Additional investigation is ongoing
 - Reference materials supporting presence of confining clay layer (playa deposit)
 - Pope, Jr. C.W. 1974. *Geology of the Lower Verde River Valley, Maricopa County, Arizona*. M.S. thesis, Arizona State University (LD 179.151974P66)
 - Skotnicki, S.J., E. M. Young, T.C. Goode and G.L. Bushner 2003. *Subsurface Geologic Investigation of Fountain Hills and Lower Verde River Valley, Maricopa County, Arizona*. Arizona Geological Survey Contributed Report CR-03-B.
 - E.L. Montgomery & Associates, 2004. *Physical Availability Determination in Support of a Modification of Designation of Assured Water Supply for Chaparral City Water Company, Fountain Hills, Arizona*. Consultant's Report.

Hydrogeologic Cross-Section



Requirements of Aquifer Protection Permit – Individual Permits

Slide 1 of 9

- Technical (AAC R18-9-A202)
- Financial (AAC R18-9-A203)
- Contingency Plan (AAC R18-9-A204)
- Alert Levels, Discharge Limitations, and AQLs (AAC R18-9-A205)
- Monitoring Requirements (AAC R18-9-A206)
- Reporting Requirements (AAC R18-9-A207)
- Compliance Schedule (AAC R18-9-A208)
- Temporary Cessation, Closure, Post-closure (AAC R18-9-A209)

APP Technical Requirements

(AAC R18-9-A202)

Slide 2 of 9

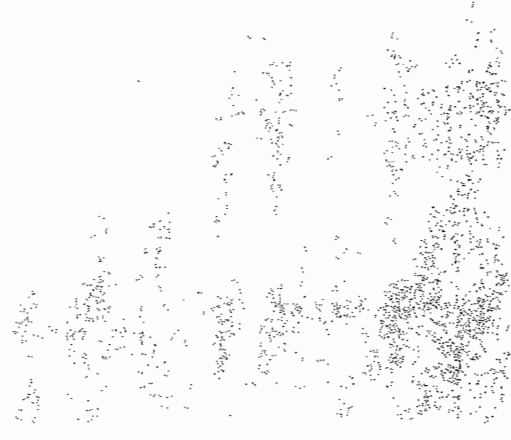
- Topographic map
- Facility site plan
- Facility design documents
- Summary of known and proposed facility discharge activities
- Description of Best Available Demonstrated Control Technology (BADCT) proposed for facility
- Contingency plan that meets AAC R18-9-A204
- Hydrogeologic Study that defines discharge impact area
- Indicate alert levels, discharge limitations, monitoring requirements, compliance schedules and temporary cessation for facility
- Closure and post-closure strategies/plans
- Any further relevant information determined by ADEQ necessary for permit

APP Financial Requirements

(AAC R18-9-A203)

Slide 3 of 9

- Demonstration of financial capability to construct, operate, close and ensure proper post-closure care of facility in compliance with ARS Title 49 Chapter 2 Article 3
- Proof of financial assurance mechanism
- Permit amendment if financial assurance changes
- Maintain recordkeeping



APP Contingency Plan Requirements

(AAC R18-9-A204)

Slide 4 of 9

- Specify a contingency plan for possible violations of:
 - Aquifer Water Quality Standards or an Acceptable Quality Level
 - Discharge limitation
 - Permit conditions
 - Alert level
 - Endangerment to the public health or environment
- Contingency plan will include:
 - Actions to be taken if a discharge violation occurs
 - 24-hour emergency response measures
 - Provide name of emergency response coordinator
 - List of people to contact
 - Description of procedures, personnel and equipment proposed to mitigate unauthorized discharges

APP Alert Levels, Discharge Limitations and Acceptable Quality Levels

(AAC R18-9-A205)

Slide 5 of 9

- ADEQ prescribes:
 - Alert levels
 - Discharge limitations
 - Acceptable quality levels



APP Monitoring Requirements

(AAC R18-9-A206)

Slide 6 of 9

- Monitoring requirements to be determined by ADEQ
- In depth recordkeeping of each sample required by the individual permit
- Monitoring record for each measurement made required by the individual permit
- Maintain monitoring records for a minimum of 10 years after date of required monitoring



APP Reporting Requirements

(AAC R18-9-A207)

Slide 7 of 9

- Permittee to notify ADEQ within 5 days of becoming aware of any permit violation
- Written report to ADEQ required within 30 days after permit violation
- Permittee to notify ADEQ within 5 days of becoming bankrupt or other federal or state environmental violations not covered under the permit

APP Compliance Schedule Requirements

(AAC R18-9-A208)

Slide 8 of 9

- Permittee to follow compliance schedule established in the individual permit
- ADEQ to consider following factors when defining compliance schedule requirements
 - Character and impact of discharge
 - Nature of construction or activity required by permit
 - Number of persons affected or potentially affected by discharge
 - Current state of treatment facility
 - Age of the facility

APP Temporary Cessation, Closure and Post-closure Requirements

(AAC R18-9-A209)

Slide 9 of 9

- Temporary Cessation
 - Notify ADEQ before cessation of 60 days or more
 - Implement conditions specified in the individual permit
- Closure
 - Notify ADEQ of intent to cease operations without resuming
 - Provide extensive closure plan within 90 days following notification
- Post-Closure
 - Provide detailed post-closure monitoring and maintenance plan in application for permit

Requirements of Underground Storage Facility Permit

Slide 1 of 8

- USF Site and Facility Characteristics (Section III-B)
- Unreasonable Harm and Hydrologic Feasibility Analysis (Section III-C)
- Technical Capability (Section III-C)
- Financial Capability (Section III-E)
- Legal Access (Section III-F)



USF Site and Facility Characteristics

(Section III-B)

Slide 2 of 8

- USF site characteristics
 - Narrative description
 - Regional map
 - Location site map
- Facility characteristics
 - Description of wells
 - Description of recharge basins
 - Description of trenches
 - Description of managed and constructed in-channel recharge
 - Define multiple use project, if necessary
 - Description of source water and delivery system
 - Facility map
 - Description of design contingencies

USF Site and Facility Characteristics

(Section III-B) continued

Slide 3 of 8

- Geology
 - Description of geologic characteristics at the site and surrounding area
 - Description of subsurface geology
 - Summary of available geologic logs and well driller logs within 1 mile of the site
 - Copies of geophysical logs and boring logs that support the USF application
- Hydrogeology
 - Provide evidence that an aquifer underlying the recharge site exists
 - Description of the aquifer including vertical and horizontal extent, thickness and lithology
 - Description of the vadose zone including vertical and horizontal extent, thickness and lithology and identify potential perching units
 - Description and map of current water levels
 - Description of water level changes – current and historic

USF Unreasonable Harm and Hydrologic Feasibility Analysis

(Section III-C)

Slide 4 of 8

- Maximum area of impact and mounding analysis
 - Calculate the maximum area of impact of a one-foot rise in the maximum water level proposed by the USF
 - Perform a mounding analysis of the maximum water storage volume at the proposed USF and include a graph of the anticipated rate of groundwater rise of the duration of the permit
 - Map of one-foot water level rise
 - Narrative supporting maximum area of impact and mounding analysis
- Land and water use inventory
 - Inventory of wells within one mile of the proposed USF
 - Inventory of structures, land uses, conditions and facilities that are likely to be impacted by rising water levels within the maximum area of impact
- Water quality
 - Provide evidence of APP permit for project

USF Unreasonable Harm and Hydrologic Feasibility Analysis

(Section III-C) continued

Slide 5 of 8

- Unreasonable harm analysis
 - Explain how the USF will be designed, constructed and operated and demonstrate that the maximum amount of water that could be in storage at any one time will not cause unreasonable harm to the land or other water users
 - State that the water storage at the USF will be governed by an APP and will not cause or contribute to a violation of state aquifer water quality standards
- Hydrologic feasibility conclusions
 - Evidence that facility will be designed, maintained, monitored, and operated for optimal recharge efficiency
 - Demonstrate that there are no insurmountable barriers to recharge and that storage of the maximum amount of water that could be in storage at anyone time is hydraulically feasible.

USF Unreasonable Harm and Hydrologic Feasibility Analysis

(Section III-C) continued

Slide 6 of 8

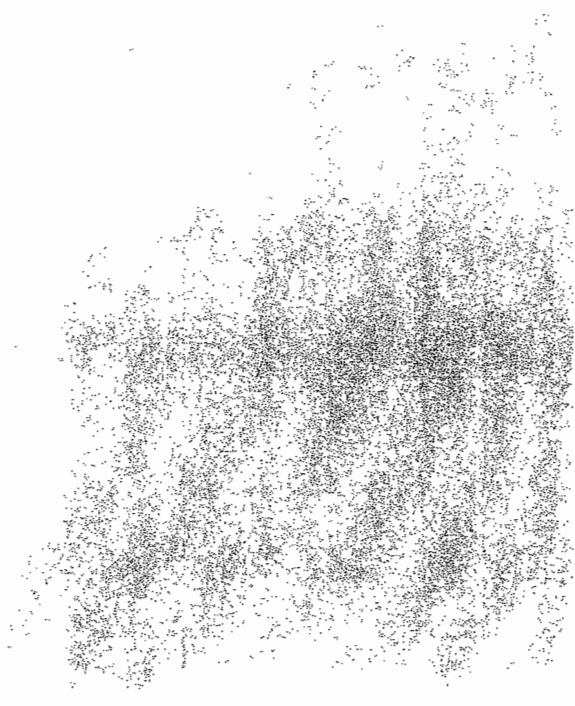
- Monitoring plan
 - Provide sufficient number of monitor wells
 - Provide locations from which water levels and water quality (both source water and groundwater) will be measured from
 - Dictate the alert level which indicates that a quick response is required to avoid the potential for unreasonable harm
 - Dictate the operational prohibition limit which is a level above the alert level and indicates that recharge activity must stop
 - Provide action plan for alert level and operational prohibition limit water levels and water quality
 - Describe the water quality monitoring plan
- Operation and maintenance plan

USF Technical Capability

(Section III-D)

Slide 7 of 8

- Demonstration of technical expertise:
 - Identify persons who will be principally responsible for construction and operation of USF and their licenses/certifications and resume



USF Financial Capability

(Section III-E)

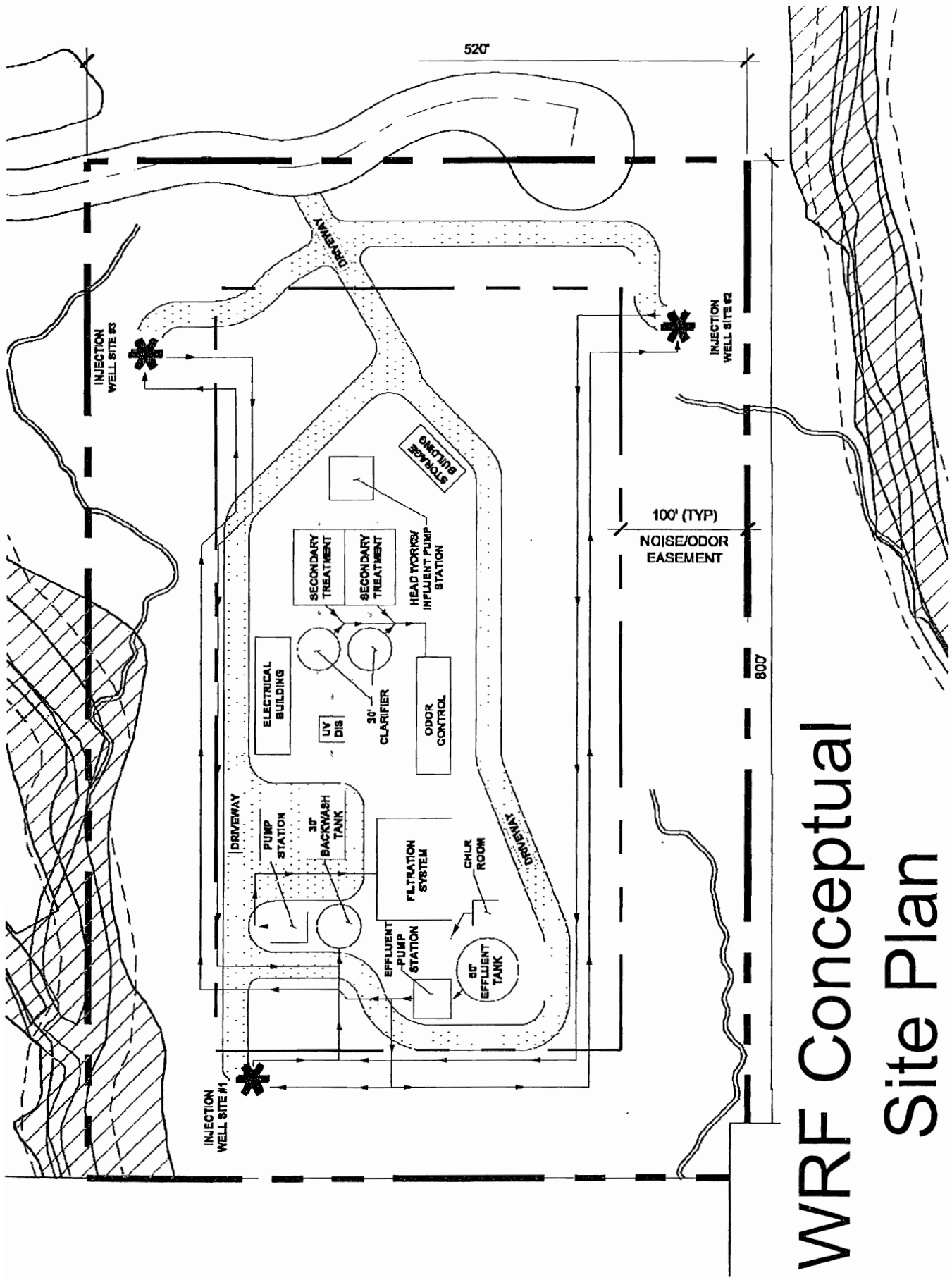
Slide 8 of 8

- Total cost estimate for the USF including construction, operational, regulatory compliance, and maintenance costs
- Certify that applicant possesses adequate existing financial resources for construction and operation costs

USF Legal Access

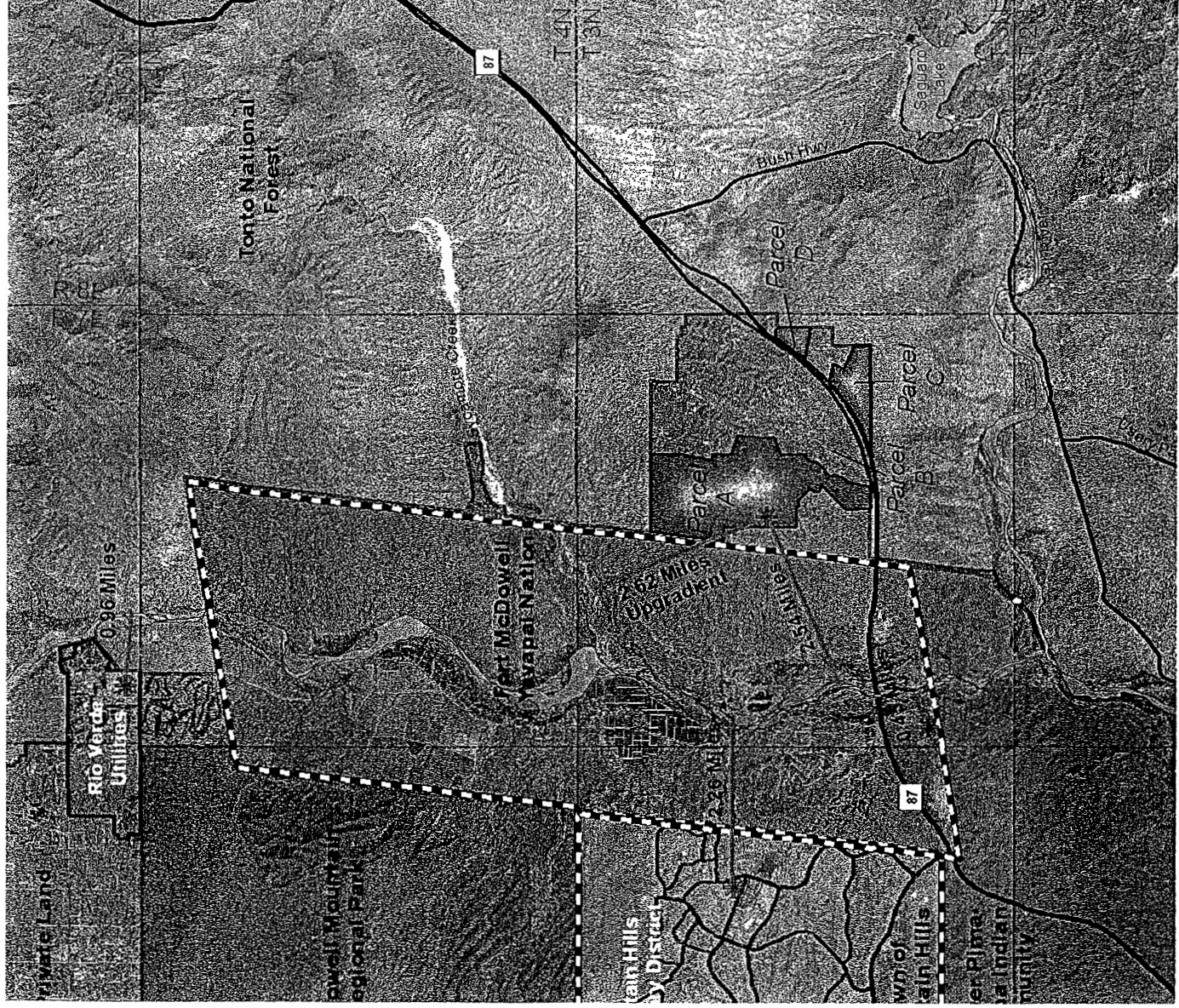
(Section III-F)

- Submit proof that applicant has legal access to the proposed site for purposes of constructing and operating at USF



WRF Conceptual Site Plan

Proximity to Waterways



Site Facilities



Groundwater Well Site



Monitoring Well Site



Recharge Well Site



Water Campus



Lift Station





Goldfield Preserve

MAG 208 Small Plant Overview

Unaddressed Concerns

Fort McDowell Yavapai Nation

The Small Plant Concept (208 MAG Water Quality Management Plan, October 2002)

- Developed in the early 80's
- *Reduce number of plants built by developers & handed over to HOA's*
- Ensure that small plants would be well designed, constructed & financed
- Avoid complaints between communities regarding small plant locations



The Small Plant Concept (continued)

- Goal of allowing maximum level of control to Cities and Towns in the approval process
- Avoid small plants being constructed close to an existing WWTP
- Engineering Report required to answer questions listed in the Criteria for Feasibility Report for Small Plants
- Affected parties can come to clear decision as to approve or disapprove the proposed small plant



Small Plant Outside of a Municipal Planning Area

- County must consider comments from any municipality/MPA whose small plant is within 3 miles
- Must not adversely affect the operation or financial structure of other facilities...
- Must be consistent with State and County regulations and other requirements
- Must be otherwise consistent with the MAG 208 Plan
- Must be approved by MCESD – *to date, this is the only condition that the applicant had attempted*



Potential Impacts of this Project on FMYN

Water Quantity

Fort McDowell Yavapai Nation's long-standing dependence on the Verde River

Surface water for farming

Subflow for potable water

Cultural/Religious purposes

Fishing

Recreation

Aesthetic Beauty

Economy

Etc.



Potential Impacts of this project on FMYN (continued)

Water Quality

The applicant has not addressed our MAG 208 water quality concerns



Questions Left Unanswered

FMYN and Ellman Holdings met with the intention to discuss basic issues that any MAG member would want addressed before voicing approval.

However, the following questions are still unresolved and/or the applicant has not provided sufficient information.



Why is small plant desired?

"Connecting to an existing WWTP would require an extensive system through drastic topographic constraints. Additionally ... not feasible..."

No alternatives provided or "evaluated"

Topography is not a constraint

FMYN MPA is not mentioned in this section nor consulted



What is the anticipated quality of the wastewater?

"Influent WW quality will be consistent with WW generated from typical domestic uses."

This question is not adequately addressed, for example;

Commercial uses are proposed but not specifically addressed in the design criteria (grease, detergents & cleaning products)

The WW concentrations used are greater (2x) than those for "typical domestic uses"

Commercial is NOT a "typical domestic use"



How and why was small plant design and capacity selected?

The design capacity was based on only a portion of the overall planning area.

As a regional planning document, the entire planning area should be included in calculating the ultimate plant capacity. This would include all of Goldfield and the proposed septic areas.

Additional land area will change the plant capacity.



What criteria were used?

"...the process ultimately used for the Goldfield WRF will be finalized during the facility design."

At this time, there **must** be sufficient planning & design completed to **define & commit to** the treatment process, odor/noise controls & site setback requirements.

Thus, members can not evaluate this plant if very basic criteria are missing.



What alternatives were considered?

"The Goldfield WRF is anticipated to be a complete mix system, although as further planning & design proceeds, the alternative treatment methodologies considered...may be reevaluated & employed at this facility"

The question is: What exactly is being approved?

At this time, MAG **requires** a treatment process to be identified and explained



What are benefits, problems of alternatives?

Developer only provided a very generic list & evaluation of four alternatives

The detail & evaluation of alternatives was very subjective & did not examine:

space needs, set backs, odor controls, capital costs, O&M costs & other critical features.

Thus, it is impossible to evaluate the impacts on the Nation and surrounding areas, including the Verde



Will there be problems meeting State or County regulations?

"If other treatment processes are considered, the effluent produced...." "The planned effluent disposal...if an alternative treatment process is used."

The treatment process remains an open question & major issues exist regarding feasibility of effluent injection wells, redundancy, etc.



What sludge management options were considered?

"Due to the potential for odor generation, site space requirements and population sensitivity issues, dewatering on site is not planned at this time."

Yet, there are no written agreements for hauling undigested sludge to another facility. Undigested sludge is not typically accepted by another municipal plant for further treatment. Thus, agreement is needed now.

Without agreement for undigested sludge - solids handling on site would have to be designed within the WRF.

On-site solids handling will have a huge impact on design costs, overall O&M costs, odors, impacts to adjacent lands, more land will be required, etc.



Is proposed plant compatible with County adopted master plans, guidelines, etc., for the area?

"The Goldfield Area Plan proposes a wastewater treatment facility within the Preserve at Goldfield Ranch."

The application lacks sufficient detail to evaluate or answer this question.

For example, it is contrary to area planning for a treatment facility to serve only a portion of the area.



What guidelines or policies apply?

"...the Master Wastewater Report for The Preserve at Goldfield Ranch (CMX 2007) provides further details on flow generation and wastewater collection system design."

For example:

WW flow estimates for development components are inconsistent.

The report lacks information for lift station locations & controls for odors, noise, and maintenance.



Can the proposed plant be expanded to serve the growing population?

"Limited expansions of the Goldfield service area...may be allowed based on individual property owners."

The Developer has failed to address major portions of the planning area for the WRF, including existing & proposed septic systems.



What population is projected for the service area?

The Goldfield development lies within Regional Analysis Zones (RAZs) 336 & 337. "...the projected population for RAZs 336 & 337 is anticipated to reach 5951"

But, the unanswered question is what is the relationship between the RAZ service area and the Goldfield planning area?

For example, as a regional facility, should the WRF site be capable of treating waste for up to 6,000 people with mixed use?



Would certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area?

"Very limited adjacent properties...." "The feasibility and potential for such expansions are limited to very few individual properties...."

There is still no back up analysis for the "very limited" properties that the applicant plans to serve or whether it is feasible.



Will proposed plant adversely impact existing or approved nearby land uses?

"The Goldfield development resides within an island of private land" (National Forest on three sides & Ft. McDowell Nation on the west)

The applicant provides no answer to this question.

FMYN existing land uses are not even mentioned, and impacts on adjacent private land owners are not addressed.



Will proposed plant adversely impact existing or approved nearby land uses? (continued)

Other impacts to residences

FMYN will be hurt financially:

Existing water treatment facility

Impacts to enterprises (e.g., golf courses, adventures outdoor facility, RV park, casino, hotel, etc.) if odor and noise controls are not put in place.



What are reactions of nearby landowners to proposed facility?

"Landowners in the project vicinity (in the Goldfield Ranch community) have expressed concerns over noise and odor control."

Limited information has been provided to specifically address FMYN & private owner concerns, including, but not limited to, property set-backs, covers/enclosures, odor control, etc.



Will there be a net water saving from effluent reuse?

"A water savings is experienced by replenishing the waters withdrawn from the aquifer through groundwater recharge."

To state that recharge is a "savings" when the initial water supply is pumped groundwater is a mischaracterization.



How will effluent be disposed of?

"Groundwater injection wells are preliminarily planned within the setbacks of the WRF site."

Feasibility obviously requires the applicant to first demonstrate that the recharge well will work over the long-term, without causing undue financial harm or environmental damage to surrounding areas.

If left unaddressed, system failures would generate costly repair and maintenance as seen in other IW throughout the state, region, and local area.



How will effluent be disposed of? (continued)

Backup-redundancy not planned in the design. Cost factors?

The description of hydrogeologic conditions is grossly inaccurate.

Based on citations provided to FMYN on Feb 13, the clay layers in these reports are not as expansive as the applicant have claimed in their own reports as well as to MAG WQC.



Do nearby existing or proposed land uses indicate a need for a larger capacity sewage plant than that proposed?

"The majority of the adjacent subdivided properties utilize septic systems to treat generated wastewater."

If septic is the alternative for additional capacity, the applicant has not answered questions such as:

How many existing septic systems are in the planning area and what is their existing condition and operating status?

How many additional septic systems will be part of the development?

Will septic jeopardize the groundwater and other water supplies (migration rates etc.)



Should nearby areas be sewerred or otherwise join the proposed plant for water quality or economic reasons?

"Limited adjoining parcels have potential to be included into the Goldfield WRF service area...."

Application still fails to evaluate the potential for inclusion. Without an explanation of how it is logistically feasible does not give MAG members information to evaluate this criteria. It appears no overall wastewater planning was addressed for the entire Goldfield Ranch development area.



Do these areas wish to join the proposed plant?

"At the present time, requests for service have not been received from neighboring adjacent parcels to join the Goldfield WRF service area."

The applicant has not provided any record of anyone being contacted and notified of the proposed plant to determine if request for service will be forthcoming.

Additional properties have also been purchased, raising the question of the need to expand immediately. If so, the applicant needs to provide another small plant review and if it exceeds 2.0 mgd a formal analysis is required.



Who will fund construction?

"Goldfield Preserve Development, LLC will be responsible for financing the wastewater infrastructure and the proposed WRF."

The provided documentation does not substantiate financial capability.

There has be no interim financial statement provided since 2006. Without such documentation, members must assume there is no cash on hand or that other financing have been secured.



Who will fund operation and maintenance costs?

"The Goldfield Preserve Improvement District will fund the operation and maintenance costs associated with the WRF as a CID."

Since the treatment system isn't defined the corresponding O&M costs can not be defined.

Who is the entity that actually funds & manages the O&M in the short- & long-term?

Is the CID ultimately the same as the HOA?



Is there adequate financial security to assure continual and proper operation and maintenance?

"The Goldfield Preserve Improvement District will have the financial security for the continual and proper operation and maintenance...and will be supplemented if needed by the developer."

Who is the existing financial entity?

What is the basis for financial security?

Where is the assurance of long-term developer involvement? Etc.



Who will operate and maintain the plant and system?

"The facility and wastewater collection system will be operated and maintained by A Quality Water Company."

There is no contract for operations & no contract for solids disposal.

Will the company have local operators?

Who will contract with and supervise the operating company?

Will the proposed company dissolve in 2010 as ACC records indicate?

Where is the info on the required site engineer?



What are anticipated capital and operation and maintenance costs?

"The capital cost of the WRF may range from \$5 million to \$10 million. The operation and maintenance costs are site specific, but may range from \$250,000 to \$300,000...."

While the applicant has provided ranges, MAG members cannot determine whether they are reasonable because the proposed treatment facility is not specifically defined.

Cost for injection well O&M alone could approach the total estimates.



Maricopa County Letter

"The proposed WRF does not conflict with Maricopa County plans for the area."

This statement is misleading because the letter does not address any of the MAG Small Plant Review questions including, but not limited to, area planning.

Does not address the relationship between the proposed WRF and existing/proposed septic systems in the planning area.

FMYN issues were not addressed.

County Improvement District Issues

"The Goldfield Preserve Improvement District will have the financial security for the continual and proper operation and maintenance...and will be supplemented if needed by the developer."

No other small plants within a CID have ever gone before MAG.

The CID material submitted to the County does not establish financial capability.

At build-out (?), the applicant must convey the facilities at no cost. As proposed, the property owners will need to petition the BOS to convert CID to DWID with their own B of D (i.e., HOA).



CID Issues (continued)

But recall the Small Plant Concept and MAG goals

- **Reduce number of plants built by developers & handed over to HOA's**

The MAG Small Plant Review process was specifically established to avoid this exact scenario
– handing over developer WRFs to undefined, “future” HOA's.





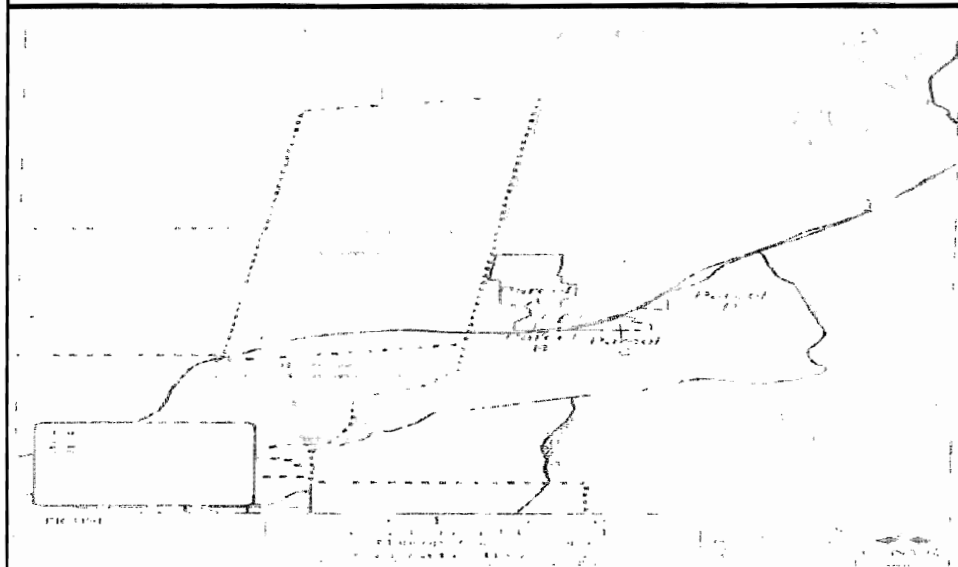
Salt River Pima Maricopa Indian Community

Presentation to MAG Water
Quality Advisory Committee

March 20, 2008

1

Salt River Pima-Maricopa Indian Community



Salt River Pima-Maricopa Indian Community

Scope for MAG Water Quality Advisory Committee

The federal water pollution control act amendments of 1972, 1977, and 1987 (clean Water act) require, under section 208, that states develop and implement areawide water quality management plans for pollution control. Plans prepared to meet the requirements of section 208

must: a) identify the treatment works needed to meet anticipated municipal and Industrial waste treatment needs of the area over a 20-year period, including construction Priorities and schedules; B) establish a regulatory program to implement the plan; C) identify an Implementation plan; D) identify non-point sources of pollution; E) identify mine-related Sources of pollution, construction activity-related sources of pollution, and salt water intrusion Into fresh waters; F) identify a process to control residual waste disposal; and g) identify a Process to control disposal of pollutants on land or in subsurface excavations.

The "208 planning process" provides an opportunity for a designated area to identify its Specific areawide waste treatment and water quality management problems and set forth a Management program to alleviate those problems. The Maricopa association of Governments (MAG) has been designated as the areawide water quality management planning Agency for the Maricopa county area.

Executive summary of 208 water quality management plan for Maricopa county association of governments, October 2002 page ES-1

3

Salt River Pima-Maricopa Indian Community

Concern: Groundwater and surface water quality and quantity

1. Potential impacts to drinking water
2. Hydrological connection of aquifer to Verde River (surface water quality)
3. Lower aquifer unit and SRPMIC groundwater
4. Desert nesting bald eagles

4

Salt River Pima-Maricopa Indian Community

Issue 1: Potential Impacts to Drinking Water

- Impacts to groundwater may affect drinking water.
 - Fountain Hills Subbasin – common aquifer
- Impacts to surface water may also affect drinking water.
 - City of Phoenix Verde Treatment Plant on the Verde/Salt River confluence.
 - 10-30 million gallons/day to Phoenix
 - 250,000 gallons/day to SRPMIC

5

Salt River Pima-Maricopa Indian Community

Issue 2: Hydrologic Connection to Verde River

- Extent of confining layer (Middle unit or clay layer) not substantiated.
- Upper unit known to be hydrologically connected – non treated water (stormwater, irrigation) may enter river via subflow.
- Pumping/recharge may impact Verde.

6

Salt River Pima-Maricopa Indian Community

Issue 3: Lower Aquifer Unit and SRPMIC Groundwater

- Effluent pumped into Lower unit will eventually end up in the same hydrogeologic unit in the northeastern part of the Community.
- General direction of the groundwater flow (north to south).

7

Salt River Pima-Maricopa Indian Community

Issue 4: Desert Nesting Bald Eagle

- Treated wastewater contains pharmaceuticals and other byproducts.
- These could have a detrimental impact on fish that eagles depend on for forage.
- Bald eagles were placed back on the endangered species list for 12 months following a recent court case.

8

Salt River Pima-Maricopa Indian Community

■ Conclusion & Position

- SRPMIC believes there is a lack of information to adequately address these concerns.
- SRPMIC believes there is a high potential for negative impacts to its water resources.
- SRPMIC does not support the Preserve at Goldfield Ranch 208 Application.

9

Salt River Pima-Maricopa Indian Community

■ Aquifer Units

- Hydrologic connection between the 3 units outlined in developer's hydrogeologic report not adequately assessed.
- Arizona Department of Water Resources (ADWR) data show that at least Upper unit is hydraulically connected to the Verde River.
- Irrigation water, stormwater, etc. not treated by wastewater treatment plant may percolate into Upper unit and may end up into the Verde River.
 - Especially during wet season.

10

Salt River Pima-Maricopa Indian Community

■ Upper/Middle Aquifer Unit and the Verde River

- Arizona Department of Water Resources (ADWR) data show that at least Upper unit is hydraulically connected to the Verde River.
- Irrigation water, stormwater, etc. not treated by wastewater treatment plant may percolate into Upper unit and may end up into the Verde River.
 - Especially during wet season.

11

Salt River Pima-Maricopa Indian Community

■ Clay layer/Middle unit

- Lack of evidence in the hydrogeological report prepared by the developer.
- Existence of the a continuous and extensive clay layer that separates the lower and upper aquifer units not substantiated.

12

Salt River Pima-Maricopa Indian Community

■ Lower Aquifer Unit and the Verde River

- Full extent of the Middle unit is not well-defined in developer's hydrogeologic report.
- Available information does not mention this unit for the Fountain Hills Subbasin.
- Developer's 208 Application claims that the Middle unit confines the Lower unit from the Upper unit
- The claim that the developer has made that there is no hydrologic connection from the Lower unit to the Verde River is not strengthened by their report.



News Release

Arizona Ecological Services Field Office
2321 W. Royal Palm Road, Suite 103
Phoenix, Arizona 85021
602/242-0210
602/242-2513 (Fax)

Arizona Ecological Services Field Office

www.fws.gov/southwest/es/arizona/

March 18, 2008

Contact: Jeff Humphrey, 602.242.0210 x222
Elizabeth Slown, 505.248.6909

U.S. Fish and Wildlife Lists the Desert Bald Eagle As Threatened Under the Endangered Species Act

Due to a recent court order, bald eagles in the Sonoran Desert of central Arizona are again protected as “threatened” under the Endangered Species Act. The U.S. Fish and Wildlife Service will soon publish an emergency interim rule in the Federal Register to comply with the court order.

On October 6, 2004, the Service received a petition to reclassify the Sonoran Desert population of bald eagles in central Arizona and northwestern Mexico as a distinct population segment, to list that DPS as an endangered species, and designate critical habitat. A distinct population segment (DPS) must be geographically discrete from other populations and also be significant to the survival of the species. Discrete refers to the isolation of a population from other members of the species and is evaluated based on specific criteria. On August 30, 2006, the Service announced a 90-day finding stating that the petition did not present substantial scientific or commercial information indicating the petitioned action may be warranted. On January 5, 2007, the petitioners filed a legal challenge against the Service’s 90-day finding decision.

As a result of that lawsuit, on March 6, 2008, the U.S. District Court for the District of Arizona ordered the Service to: 1) conduct a status review of the “bald eagle population of the Sonoran Desert region of the American Southwest” (Desert bald eagle) to determine whether recognizing the Desert bald eagle population as a DPS is warranted, and if so, whether listing the DPS as threatened or endangered pursuant to the Endangered Species Act is warranted; and 2) issue a 12-month finding on whether recognizing the Desert bald eagle population as a DPS is warranted, and if so, whether listing the DPS as threatened or endangered is warranted. The court ordered the Service to issue this finding by December 5, 2008.

Based on the court order and the description of the bald eagle population in the original petition, the Desert bald eagle population is defined as those eagles in the Sonoran Desert residing in central Arizona and northwestern Mexico. Since bald eagles in northwestern Mexico were never protected under the Endangered Species Act, only those bald eagles found in the Sonoran Desert of central Arizona are reinstated to federal protection under the Endangered Species Act. The remainder of formerly listed bald eagles will not be placed back on the list of threatened and endangered species.

The Service first listed the bald eagle as endangered in 43 States and threatened in 5 others on February 14, 1978. Bald eagles were never listed in Alaska where they are abundant and are not found in Hawaii. On July 12, 1995, the Service reclassified the bald eagle from endangered to threatened in the lower or contiguous 48 States. The Service published the final rule to delist the bald eagle in the lower 48 states on July 9, 2007. This action was based on a thorough review of the best available data, which indicated that the threats to the species have been eliminated or reduced to the point at which the species had recovered and no longer met the definition of threatened or endangered.

In order to ensure the public is notified of the effects of the recent court order, the Service will soon publish an emergency interim rule amending the regulations for the Federal List of Endangered and Threatened species at 50 CFR 17.11 to designate the Desert bald eagle as threatened in accordance with the Endangered Species Act. The emergency interim rule will be effective until the Service makes a new final determination as to the appropriate status of the Sonoran Desert bald eagle, or until the March 6, 2008, court order is either stayed or reversed in any subsequent judicial proceedings. No decision has been made as to whether the government will appeal that order.

The map below illustrates the area within which the Desert bald eagle is identified as a threatened species under the Endangered Species Act.

For more information on this court order and bald eagle recovery in the U.S. please visit <http://www.fws.gov/migratorybirds/baldeagle.htm> for further information.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service. For more information on our work and the people who make it happen, visit **www.fws.gov**.



SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY

10,005 E. OSBORN RD./SCOTTSDALE, AZ 85256

PHONE (480) 362-7400

March 17, 2008

Mr. Roger Klingler
MAG Water Chairman
c/o City of Scottsdale
3939 N. Drinkwater Blvd.
Scottsdale, Arizona 85251

Dear Mr. Klingler:

On behalf of the Salt River Pima-Maricopa Indian Community (SRPMIC), I am writing to update you on the outcome of our meeting on January 29, 2008 with Mr. Don Kile, and associates regarding the Preserve at Goldfield Ranch 208 application.

At the conclusion of the meeting I communicated with Mr. Kile and to your representatives at a separate meeting that there would still be several next steps for the Community to take including updating the SRPMIC Council, President and Vice President and continue with our internal research.

On January 11, 2008 I sent Mr. Garry Hays a letter outlining our preliminary concerns regarding the proposed Water Reclamation Facility. The issues I outlined are as follows:

1. Possible detrimental impacts to the Verde and/or Salt Rivers through connectivity to the aquifer receiving effluent recharge from the proposed Water Reclamation Facility.
2. Possible impacts to the SRPMIC groundwater resource through connectivity of the underground aquifers below the Preserve at Goldfield Ranch and the SRPMIC.
3. Possible Water Reclamation Facility failure resulting in groundwater contamination and lack of sufficient contingency plan to address such a failure.

We were advised that a contingency plan would be included in the next step involving ADWR and ADEQ.

As of today, we are still concerned about the detrimental effect to drinking water, groundwater decline, Upper and Middle aquifer units and the Verde River, Lower aquifer unit and SRPMIC groundwater, Lower aquifer unit and the Verde River and impacts to the Desert Nesting Bald Eagle, which has been placed back on the Endangered Species List. Finally, we have concerns with the clay layer and the lack of evidence to reflect that the extensive clay layer adequately separates the lower and upper aquifer.

While Mr. Kile did forward graphs for the reference materials previously provided, the information provided thus far does not adequately answer the questions we've raised. Nor was he willing to provide additional data to support his claims or address our concerns.

Based upon our research and the lack of supporting evidence and documentation concerning the issues we have raised, we cannot support Goldfield's 208 application.

Sincerely,

A handwritten signature in black ink that reads "Vivian Saunders/plb". The signature is written in a cursive, flowing style.

Vivian Saunders
Special Assistant
On Congressional & Legislative Affairs



SALT RIVER
PIMA-MARICOPA INDIAN COMMUNITY
10,005 E. OSBORN RD./SCOTTSDALE, AZ 85256
PHONE (480) 362-7400

March 17, 2008

Mr. Don Kile, President
The Ellman Companies
2850 East Camelback, Ste. 110
Phoenix, Arizona 85016

Dear Mr. Kile:

Thank you for taking time to meet with representatives of the Salt River Pima-Maricopa Indian Community (SRPMIC) on January 29, 2008 at our Administration building.

As I communicated to you and your representatives, there would still be several next steps for the Community including updating the SRPMIC Council, President and Vice President and to continuing with our internal research.

On January 11, 2008 I sent to Mr. Garry Hays, a letter outlining our preliminary concerns regarding the proposed Water Reclamation Facility. The issues I outlined are as follows:

1. Possible detrimental impacts to the Verde and/or Salt Rivers through connectivity to the aquifer receiving effluent recharge from the proposed Water Reclamation Facility.
2. Possible impacts to the SRPMIC groundwater resource through connectivity of the underground aquifers below the Preserve at Goldfield Ranch and the SRPMIC.
3. Possible Water Reclamation Facility failure resulting in groundwater contamination and lack of sufficient contingency plan to address such a failure.

At that time you indicated that the contingency plan would be included in the next step involving ADWR and ADEQ.

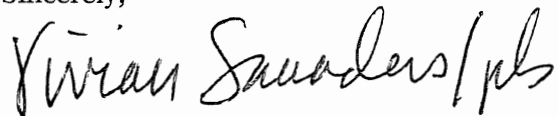
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While you did forward graphs for the reference materials you previously provided the information you've provided thus far does not adequately answer the questions we've raised. Nor are you willing to provide additional data to support your claims or address our concerns.

Based upon our research and the lack of supporting evidence and documentation from your Company concerning the issues we have raised, we cannot support your 208 application.

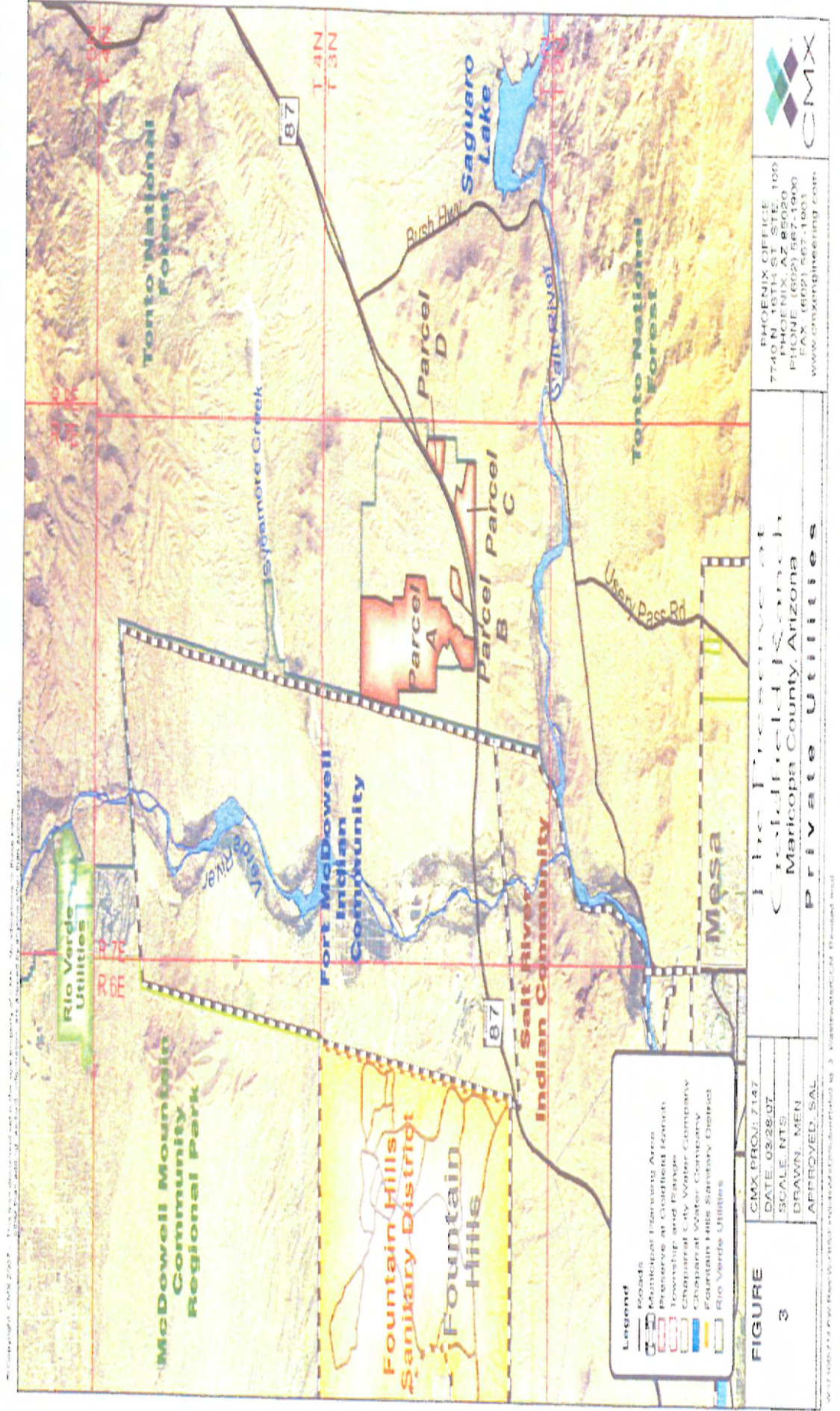
Thank you for meeting with the SRPMIC and we look forward to addressing the MAG Water Quality Advisory Committee.

Sincerely,

A handwritten signature in black ink that reads "Vivian Saunders/pls". The signature is written in a cursive, flowing style.

Vivian Saunders
Special Assistant
On Congressional & Legislative Affairs

Salt River Pima-Maricopa Indian Community



the public hearing. The public hearing is conducted by MAG. A court reporter prepares an official transcript of the hearing. If written or verbal comments are received, a response to comments is prepared by the entity requesting the amendment.

The MAG Water Quality Advisory Committee reviews the response to comments and then makes a recommendation to the MAG Management Committee. The MAG Management Committee reviews the recommendation from the Water Quality Advisory Committee and then makes a recommendation to the MAG Regional Council. As the decision-making body of MAG, the Regional Council reviews the recommendation from the Management Committee and then takes official action to approve the 208 Plan amendment.

The State Water Quality Management Working Group reviews the 208 Plan amendment approved by the Regional Council and then makes a recommendation to the Arizona Department of Environmental Quality (ADEQ). ADEQ submits the 208 Plan amendment to the U.S. Environmental Protection Agency (EPA) for approval and EPA approves the 208 Plan amendment and notifies the State of the approval action.

The Arizona Department of Environmental Quality maintains a 208 amendment checklist for use in preparing 208 Plan Amendments. Copies of the current checklist can be provided by ADEQ upon request.

4.5 SMALL PLANT REVIEW AND APPROVAL PROCESS

4.5.1 Introduction

In the 1982 MAG Point Source Plan Update an alternative to continue expansion of the 91st Avenue WWTP and other major treatment plants was the construction of small reclamation plants. Rather than amend the MAG 208 Plan to include every acceptable new small plant, the communities developed a small plant review and approval process.

Using this process, a small plant not specifically identified in the Point Source Plan can be approved as part of the 208 Plan if the plant goes through the approved Small Plant Review and Approval Process. By requiring proposed plants in the area to obtain approval using this formal process, an uncontrolled proliferation of small plants that could cause problems in the future should be prevented. The communities adopted a small plant process goal of allowing the Cities and Towns the maximum level of control in the approval of small plants. A Small Plants Technical Steering Committee was formed in 1982, composed of representatives from the cities, state, county, and homebuilders. This committee, in conjunction with consultants and MAG staff, developed the Small Plant Review and Approval Process.

4.5.1.1 *Small Plant Definition*

A small plant is a reclamation plant with an ultimate capacity of 2.0 mgd or less with no discharge requiring an National Pollutant Discharge Elimination System or Arizona Pollutant

Discharge Elimination System permit. Plants greater than 2.0 mgd and discharges requiring an National Pollutant Discharge Elimination System or Arizona Pollutant Discharge Elimination System permit which are not specifically identified in the MAG 208 Plan would be required to go through a formal 208 analysis and amendment.

Small plants that are specifically identified in the MAG 208 Plan are required to go through the Small Plant Review and Approval Process for an expansion of the facility, even when the expanded facility would still meet the small plant threshold of 2.0 mgd or less.

4.5.1.2 *Municipal Small Plant Planning Area Boundaries*

For the purposes of the 208 Plan, the Municipal Small Plant Planning Areas are the same as the MAG Municipal Planning Areas (MPAs). The 27 MPAs generally correspond to the jurisdictions for which they are named. Minimally, the planning area for each city or town includes all of its incorporated area plus portions of the County surrounded by strip annexation to allow municipalities to plan for those unincorporated areas.

4.5.1.3 *Areas of Responsibility*

Three areas of responsibility are defined. One is the Municipal Small Plant Planning Area. This is the area identified by the municipality within which the City or Town would have responsibility for the first review and approval of proposed wastewater facilities. The second area is the County Planning Area and within this area, the County would have the responsibility for deciding which wastewater facilities were constructed.

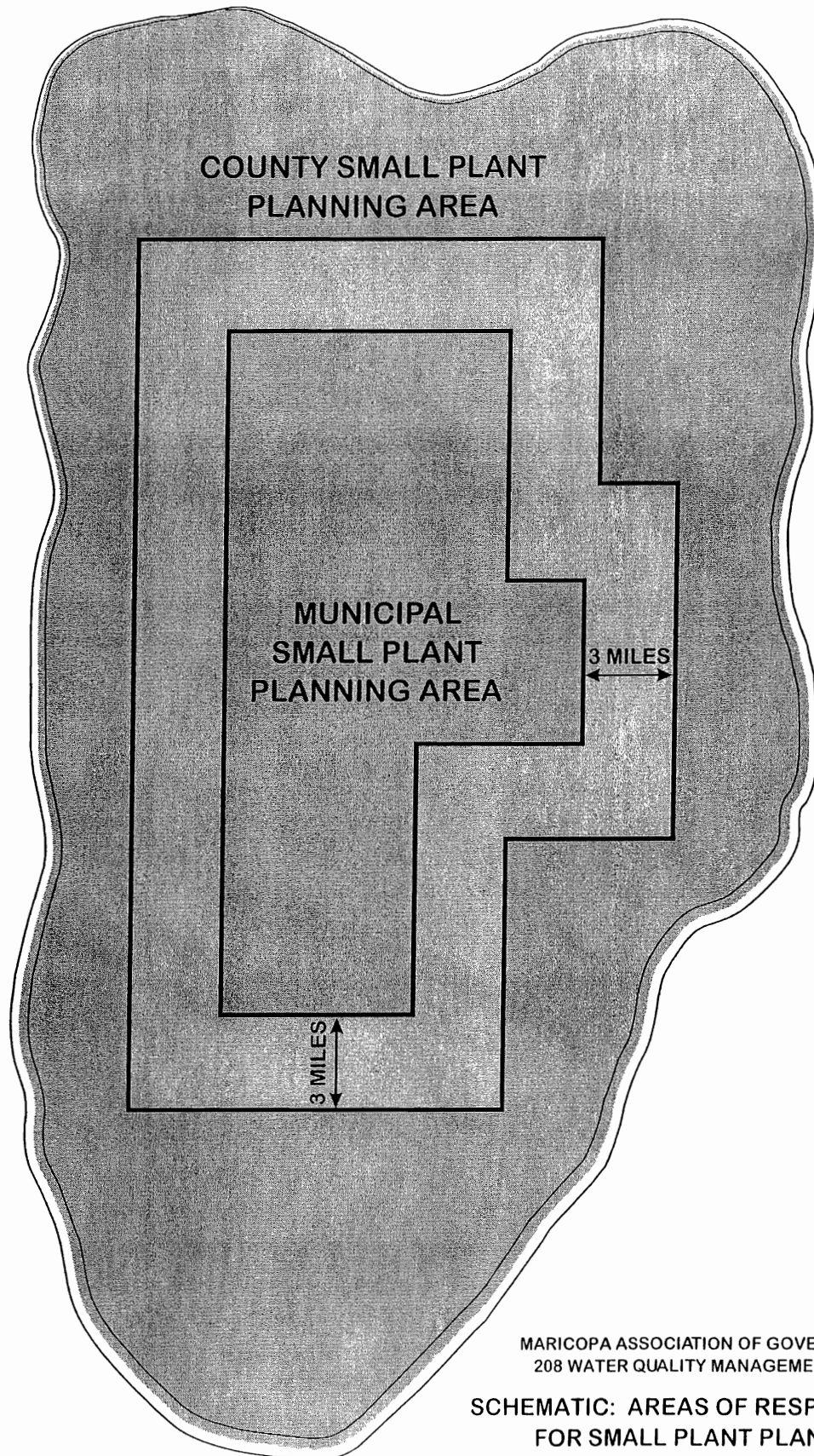
Between the two areas is a third area. This is the area in the County that is within three miles of a Municipal Small Plant Planning Area. Although this area is within the County's area of responsibility, the County must consider the comments of the nearby City or Town concerning proposed facilities in this three-mile area. Figure 4.31 schematically illustrates the relationship between the three areas of responsibility.

4.5.1.4 *Review and Approval Process*

In the process developed for a proposed facility within a Municipal Small Plant Planning Area, the City or Town would work with a developer to come up with a suitable small plant concept. When an acceptable concept has been worked out, the City would send a letter to MAG stating that the proposed small plant is in keeping with the City's wastewater plans for the area.

MAG would then review the proposal and send a letter to the Arizona Department of Environmental Quality (ADEQ) stating whether the small plant is compatible with the overall 208 Plan. The ADEQ has the legal authority to identify compliance with the 208 Plan. Therefore, the final 208 letter of compliance must come from ADEQ. This letter would go to the developer and the Maricopa County Environmental Services Department (MCESD). Upon receiving an approval letter, MCESD would review the plans and specifications for the construction of the wastewater system in the proposed development.

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MARICOPA ASSOCIATION OF GOVERNMENTS
208 WATER QUALITY MANAGEMENT PLAN

**SCHEMATIC: AREAS OF RESPONSIBILITY
FOR SMALL PLANT PLANNING**

CAROLLO ENGINEERS
2001

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Should a developer not be able to work out the details of its proposed small plant with the particular City or Town, it would not be able to proceed. The County would not approve the plans and specifications without the compliance letter from the ADEQ. The state will not give a letter of compliance unless they receive the approval letters from the City and MAG. In accordance with R18-9-B201(H), the Arizona Department of Environmental Quality shall not publish a Notice of Preliminary Decision to issue an individual permit or amendment for a sewage treatment facility that is not in conformance with the Certified Areawide Water Quality Management Plan and the Facility Plan (see the Appendices). For a proposed project in the County, the County would play the same role as the City in the early project review and development. Projects within three miles of a Municipal Small Plant Planning Area would be reviewed and commented on by the affected City or Town. Projects with major problems to the City or Town which could not be resolved, would not receive compliance from ADEQ. The specific process adopted in the MAG 208 Plan in 1982 is set forth below.

4.5.2 MAG Small Plant Process

No wastewater treatment plant greater than 2.0 mgd ultimate capacity is considered to be in compliance with this plan unless it is specifically named in the Plan or added through 208 Plan Amendments.

Wastewater treatment plants with an ultimate capacity of 2.0 mgd or less are considered to be in compliance with this plan if they are approved using the following processes:

1. Within Municipal Planning Area

To be approved for construction, a small wastewater treatment plant (2.0 mgd ultimate capacity or less) not otherwise mentioned in the MAG 208 Plan but located within a Municipal Small Plant Planning Area must:

1. Have the approval of the municipality in whose planning area it will be located;
2. Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants;
3. Be consistent with State and County regulations and other requirements; and,
4. Be otherwise consistent with the MAG 208 Plan.

The process for approval of a small plant is as follows:

1. Developer prepares an engineering report on the proposal and submits the report to the City.

2. City reviews the proposal based upon the guidelines in the attached list (Table 4.52) and any others depending upon the needs and desires of the specific City or Town. If the City or Town does not have the staff capability to perform this review, the review process used would be that for small plants outside a Municipal Planning Area. It is also recommended that the City or Town reviewing a proposed development contact any adjacent community if the proposed development is within three miles of boundary between the two communities.

Table 4.52 Guidelines for Small Plants Within Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update	
1)	Plant Justification <ul style="list-style-type: none"> • Why Plant is Required <ul style="list-style-type: none"> - Limited capacity at existing plant or sewer - Too far from trunk sewer - Temporary plant - Soil limitations - Effluent reuse or water conservation - Sludge management options - Other
	<ul style="list-style-type: none"> • Master Plan Compatibility <ul style="list-style-type: none"> - Is plant compatible with future plans for the area? - Will proposed plant impact existing or proposed plants? - Will proposed plant impact existing or proposed reuse plans in the region?
	<ul style="list-style-type: none"> • Benefits of Plant <ul style="list-style-type: none"> - Net water saving - Delays major capital expenditures - Better scheduling and project control - Allows development
	<ul style="list-style-type: none"> • Potential Problems <ul style="list-style-type: none"> - High capital and operational costs - Impacts on groundwater - Impacts on surface water - Inability to meet State regulations - Financial failure of operation - Poor operation and maintenance (O&M)

Table 4.52 Guidelines for Small Plants Within Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update
<ul style="list-style-type: none"> • Financial <ul style="list-style-type: none"> - Who will fund construction? - Who will fund O&M costs - short term? - Who will fund O&M costs - long term? - Financial security
<ul style="list-style-type: none"> • Operation <ul style="list-style-type: none"> - Who will operate plant - short term? - Who will operate plant - long term?

3. If the proposal fits into the City's Master Plan, then the City sends a letter and a summary of the proposal to MAG (copy to the developer) stating the proposal is approved by the City and it is compatible with the 208 Plan covering the City's Planning Area.
4. MAG reviews the proposal for overall 208 Plan compliance to ensure that the Small Plant Process is followed, and to ensure that regional impacts are addressed. This evaluation will be coordinated by the MAG Water Quality Advisory Committee. Recommendations from the Water Quality Advisory Committee will be presented to the MAG Management Committee. Recommendations from the Management Committee will be presented to the Regional Council.
5. Based on Regional Council actions, MAG sends a letter to ADEQ and the proposal summary (copies to developer, City, and MCESD) stating whether the proposed project is compatible with the overall 208 Plan.
6. Upon receipt and review of the letter from MAG, ADEQ submits a letter and proposal summary to MCESD and developer stating whether the proposed project is in conformance with the MAG 208 Plan.
7. The developer, after receiving an approval letter from ADEQ, submits plans and specifications to MCESD for review together with a copy of the approved design concept.
8. MCESD reviews, based on ADEQ Bulletin #11 and County regulations, the plans and specifications and issues permit to construct.

For the purpose of this process, a Sanitary District is treated in the same fashion as a Municipality.

2. Outside of Municipal Planning Areas

To be approved for construction, a small wastewater treatment plant (2.0 mgd ultimate capacity or less) not otherwise mentioned in the MAG 208 Plan and located outside a Municipal Small Plant Planning Area must:

1. Have the review and comment of any municipality whose Small Plant Planning Area is within three miles of the proposed plant location or service area;
2. Not adversely affect the operation or financial structure of existing or proposed wastewater treatment plants;
3. Be consistent with State and County regulations and other requirements;
4. Be otherwise consistent with the MAG 208 Plan; and,
5. Be evaluated and approved, or modified by Maricopa County Environmental Services Department (MCESD).

The process for approval of a small plant is as follows:

1. Developer submits engineering report to Maricopa County and any cities whose Municipal Small Plant Planning Areas are within three miles of the proposed plant's service areas. This report would contain sufficient information for evaluation of the report based upon the attached guidelines as set forth in Table 4.53.

Table 4.53 Criteria for Feasibility Report for Small Plants Outside of Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update	
1)	Technical Criteria <ul style="list-style-type: none">• Why is small plant desired?<ul style="list-style-type: none">- Depth to groundwater less than _____ ft.- Soil limitations prevent use of septic tanks- Potential for reuse or water conservation- Lot size one acre or less- Area not planned for regional service for _____ years- Density of projected population- Will serve industrial or commercial area

Table 4.53 (con't.)	Criteria for Feasibility Report for Small Plants Outside of Municipal Small Plant Planning Area MAG 208 Water Quality Management Plan Update
<ul style="list-style-type: none"> • What is the anticipated quality of the wastewater? <ul style="list-style-type: none"> - Domestic - Commercial and/or Industrial - If commercial and/or industrial wastes are anticipated, what provisions are being taken to ensure no toxic substances will be discharged? 	
<ul style="list-style-type: none"> • How and why was small plant design and capacity selected? <ul style="list-style-type: none"> - What criteria were used? - What alternatives were considered? - What are benefits, problems of alternatives? - Will there be problems meeting State or County regulations? - What sludge management options were considered? 	
2)	Planning Criteria <ul style="list-style-type: none"> • Is proposed plant compatible with County adopted master plans, guidelines, etc., for the area? <ul style="list-style-type: none"> - What plans apply? - What guidelines or policies apply?
<ul style="list-style-type: none"> • Can the proposed plant be expanded to serve growing population? <ul style="list-style-type: none"> - What population is projected for the service area? - Would certain areas lend themselves, topographically or hydrologically, by planned use or density to being included in the service area? 	
<ul style="list-style-type: none"> • Will proposed plant adversely impact existing or approved nearby land uses? <ul style="list-style-type: none"> - What are land uses within _____ miles? - What is zoning for the surrounding area? - What are reactions of nearby landowners to proposed facility? 	
<ul style="list-style-type: none"> • Will there be a net water saving from effluent reuse? <ul style="list-style-type: none"> - How will effluent be disposed of? - What is the estimated water saving? 	
<ul style="list-style-type: none"> • Do nearby existing or proposed land uses indicate a need for a larger capacity sewage plant than that proposed? <ul style="list-style-type: none"> - Should nearby areas be sewered or otherwise join the proposed plant for water quality or economic reasons? - Do these areas wish to join the proposed plant? 	

**Table 4.53 Criteria for Feasibility Report for Small Plants Outside of Municipal Small Plant Planning Area
MAG 208 Water Quality Management Plan Update**

3)	Development Criteria <ul style="list-style-type: none"> • Who will fund construction? • Who will fund operation and maintenance costs? • Is there adequate financial security to assure continual and proper operation and maintenance? • Who will operate and maintain the plant and system? • What are anticipated capital and operation and maintenance costs?
----	--

2. The involved Cities evaluate the report and send a letter containing their recommendations to Maricopa County (copies to MAG and developer).
3. Maricopa County incorporates City's concerns and sends a letter and summary of the proposal to MAG (with copies to involved Cities and developers), stating whether the proposal for wastewater is acceptable to the County.
4. MAG evaluates the proposed plant for overall MAG 208 Plan conformance to ensure that the Small Plant Process is followed and to ensure that regional impacts are addressed. This evaluation will be conducted by the MAG Water Quality Advisory Committee. Recommendations from the Water Quality Advisory Committee will be presented to the MAG Management Committee. Recommendations from the MAG Management Committee will be presented to the Regional Council. Based upon Regional Council action, MAG submits letter on 208 compliance to ADEQ (with copies to Maricopa County, the developer and any involved cities).
5. After review of the MAG Submittal, ADEQ submits letter to MCESD (with copy to the developer) indicating 208 Plan compliance.
6. After receipt of an approval letter from ADEQ, MCESD reviews and approves plans and specifications based upon Bulletin # 11 and issues permit to construct.

It should be noted that before a development proceeds, approval has to be obtained for the entire master plan. Approval by the State and County Departments only constitutes one part of the approval process.

GOLDFIELD CONCERNED CITIZENS' ASSOCIATION

Kathy Haines, President, Phone: 480 980 4661
12140 N. Sin Vacas Trail, Ft. McDowell AZ 85264

March 20, 2008

Mr. Kevin Chadwick, P.E., Division Manager
Environmental Services, Water and Waste Management Division
1001 N. Central Ave., Suite 150
Phoenix, Az. 85004

Re: Preserve at Goldfield Ranch, MAG 208 Small Projects Review

Dear Mr. Chadwick:

Three days ago we learned about the MAG 208 Small Projects Review for the wastewater treatment plant being proposed for the Preserve at Goldfield Ranch. In reviewing your sponsorship letter of February 29, 2008, and the minutes of meetings of the MAG Water Quality Advisory Committee for October and December, 2007, we see that you have made the determination that the application is in technical compliance with the MAG 208 Areawide Water Quality Management Plan and, in particular, with Section 4.5.2, the Small Plant Review and Approval Process.

We ask you to reconsider that determination in light of facts not previously supplied to you that demonstrate technical noncompliance with the Small Plant Review and Approval Process, in at least three major respects.

1. The Application Fails to Consider All Relevant Adjacent Parcels.

The feasibility criteria set forth in Table 4.53 for a Small Plant Application outside of a municipality require the applicant to address whether certain areas lend themselves to being included in the service area, whether nearby areas should be sewered for water quality or economic reasons, and whether nearby areas wish to join the proposed plant. None of these three requirements has been satisfied by the Goldfield Preserve's application.

The application does state, in paragraph 3.2.2, that the development "is bordered on the east by the relatively small parcels of private land (1 to 5 acre lots) in the original Goldfield Ranch community," which "are already developed and operating individual septic systems" (emphasis added). It then goes on to state that it would not be feasible for most of those small lots to be sewered or included in the service area. But the underlying premise is both *incomplete* and *inaccurate*, and therefore the analysis fails to satisfy these technical requirements for a Small Plant Review and Approval.

Maricopa Association of Governments
Received

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The analysis is incomplete because it fails to address the 80 acre parcel lying immediately adjacent and west of Parcel A of the Preserve development. This parcel is owned by a developer who submitted comments in the Goldfield Area Plan process, at about the same time this MAG 208 Application was first drafted, stating that he intended to develop that acreage at a density of two homes per acre. We understand Maricopa County would require homes on ½ acre lots to be sewered. Those 160 homes would by themselves generate 51,200 gpd and exceed the capacity of the proposed plant designed to handle 0.4 mgd. Yet there is absolutely no analysis of whether that “nearby area [should] be sewered or otherwise join the proposed plant for water quality or economic reasons,” as required the Planning Criteria of Table 4.5.3. The immediate adjacency of these 80 acres to the proposed wastewater plant, at relatively the same elevation on relatively flat land, and the proposed nature of the development all suggest it would be entirely feasible to join the plan. And it would also be good planning to avoid “an uncontrolled proliferation of small plants that could cause problems in the future [and that] should be prevented,” as paragraph 4.5.1 of the MAG 208 Water Quality Plan provides.

The statement and analysis in the application is also contrary to the actual facts, because most of the nearby parcels to the east are *not* 1 to 5 acre lots already developed with septic systems. First, there are no 1, 2 or 3 acre lots in Goldfield Ranch. Under current zoning, the minimum lot size is 4.36 acres. Second, and much more importantly, the statement is inaccurate because most of the nearby lots are not 5 acre lots already developed with septic systems. There are approximately 30 undeveloped parcels, ranging in size from 5 to 40 acres, that are immediately adjacent to Parcels A and B and are not “already developed and operating individual septic systems” as the application maintains. Just these immediately adjacent parcels could generate around 50 homes and another 16,000 gpd. In addition, there are another 9 large parcels of 40 acres or more in the immediate vicinity, many of which are owned by developers, including some by this same developer, Ellman Companies.

By addressing only why it is not feasible to include in the service area the neighboring 5 acre lot that already have septic systems, the application fails to address all of the nearby 40 and 80 acre parcels, and therefore fails to satisfy this technical requirement for a Small Plant Review and Approval.

Finally, it should be noted that Maricopa County has already determined that it is feasible to serve all of the south side of the Beeline with this wastewater plant, when the Preserve DMP was originally approved in 1995. Nothing in the current application demonstrates why that determination was wrong. And, most importantly, that 1995 DMP still calls for 18 acres of that land to be developed under commercial zoning, which **has** to be sewered. This applicant opposed our efforts to have that commercial zoning eliminated from the DMP, and was successful in keeping it in the plan. The application is therefore required to provide an analysis whether those nearby 18 acres planned for commercial zoning should “be sewered or otherwise join the proposed plant for water quality or economic reasons.”

2. The Application Failed to Determine the Reactions of Nearby Landowners.

Table 4.53(2) requires the application to ascertain and identify the “reactions of nearby landowners to the proposed facility.” This has not been done.

The application purports to satisfy that requirement by stating, in paragraph 3.3.3, that nearby landowners “have expressed concerns over noise and odor control.” But that statement is misleading, at best, because it fails to indicate those concerns were expressed in reaction to a proposed development master plan that had only a generic reference to some kind of wastewater treatment, and long *before* this MAG 208 application was even drafted.

Nearby landowners’ reactions have **never** been solicited or otherwise ascertained with respect to this MAG 208 application, and they have never even been informed of an opportunity to express their reactions to it. As far as we know, we are the only nearby landowner who has even seen a copy of the MAG 208 application, and that was obtained only this week.

In particular nearby landowners have never had an opportunity to express their reactions to:

- 1) A wastewater plant that disposes of effluent by injecting it into the groundwater aquifer;
- 2) An injection plan that relies on a supposed “confining” playa deposit to prevent it from polluting either the Verde River or the residents’ groundwater source, which has never been proven to the satisfaction of the residents, Salt River Project, the Fort McDowell Yavapai Nation, or any regulatory authority;
- 3) A wastewater plant that is not designed to handle development of nearby 40 and 80 acre parcels that are owned by developers, or the planned commercial zoning and uses on the south side; or
- 4) A wastewater plant promised to be constructed by an entity that has no tangible assets other than raw land encumbered by a mortgage for more than it is worth, *i.e.*, no net worth, and no history or experience in building sewage plants.

3. The Application Fails to Demonstrate No Discharge to US Waters.

Finally, the MAG 208 Small Projects Review process is appropriate only for plants that have no discharge into waters of the United States. Although this application makes that claim (§ 3.4.1), it has not provided any relevant evidence to support it. While technical pollution questions may properly be deferred to the ADEQ permitting process, there must first be a threshold demonstration of no discharge to regulated waters, and the MAG Water Quality Advisory Committee must so conclude, before this Small Projects Review process can even go forward.

The sole basis for claiming no discharge rests on the claim that there are “playa deposits forming a confining layer where they are present” (§ 3.4.1) (emphasis added), which will prevent effluent injected into the lower fanconglomerate from discharging into the upper aquifer or the subflow of the Verde River. But the only real evidence of that confining playa deposit, that is supposedly 400 feet thick, comes from a single test well drilled 23 years ago (Hydrologic Study, App. G, at 7). Most importantly that test well was located a mile to a mile and a half north of the proposed wastewater plant (*compare* App. A, Fig. 2, with App. G, Fig. 3).

Even if the 1985 data show a playa deposit in the vicinity of that old test well located in the extreme northern part of Parcel A, the hydrology report provides no basis to conclude that it exists in the vicinity of the proposed wastewater plant, or that it is sufficiently uniform and consistent throughout the 2½ miles between the plant and the Verde River to prevent any discharge into its subflow.

First, the hydrology report itself reveals the inconsistency of the supposed playa deposit. The report notes that “the full extent of this formation is unknown as most wells in the basin do not penetrate it” (App. G at 5). The playa deposit is “thin or absent” “near the mountain fronts” (App. G at 8). When the Preserve’s own hydrologist attempted to confirm its existence, the most he could conclude from his one test well in Parcel C was that it “appeared to encounter a thin section [of] the playa deposit” (App. G at 5) (emphasis added). Consequently he only guesstimates, by dotted lines, where the playa deposit may be found, in Figure 2. This is no basis to conclude that there is evidence a uniformly consistent 400 foot confining layer exists to keep the injected effluent from reaching the Verde River.

Second, there is not a single well, much less a test well, that has been drilled anywhere within a mile of the proposed sewage plant (*see* App. G, Fig. 3). And, more importantly, there are no wells anywhere between the proposed sewage plant and the Verde River (*id.*). Consequently there is absolutely no evidence of a playa deposit in the vicinity of the proposed injection wells.

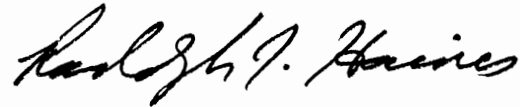
Finally, the hydrology report the developer relies on was not done to determine whether a playa deposit would uniformly and consistently prevent injected effluent from reaching either the supposed upper aquifer or the subflow of the Verde. Its only purpose was to determine the existence of adequate groundwater and the effect its pumping would have on available water resources (App. G, at 1). And consequently, although the hydrology report makes six conclusions, it makes no conclusion about the existence, uniformity, consistency or thickness of a confining playa deposit, nor whether it would separate injected effluent from the Verde River subflow (*see* App. G, at 13). Nor is there any conclusion that it will not result in any discharges into the waters of the United States.

Both Maricopa County, as the sponsoring agency, and the MAG Water Quality Advisory Committee need much more than lawyer argument and extrapolation to determine that this injection well plant qualifies for the Small Plant Review Process because there is no possibility of a discharge into U.S. waters. At minimum, there needs to be a hydrologic study designed and implemented specifically focused on answering that question, based on test wells surrounding

and in the immediate vicinity of the proposed injection wells, as well as between them and the Verde River.

In light of these significant facts that were apparently not previously brought to your attention, we ask that you reconsider your determination that the Preserve's MAG 208 application is in technical compliance with the Small Plant Review Process.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathy and Randy Haines". The signature is fluid and cursive, with the first names being more prominent.

Kathy and Randy Haines
President and Secretary
Goldfield Concerned Citizens' Association

cc: Hon. Supervisor Don Stapley
Wesley A. Shoner, P.E.
Dr. Carol Klopatek, FMYN
Julie Hoffman, MAG

Julie Hoffman

From: robertclaughlin@ieee.org [robertclaughlin@comcast.net]
Sent: Wednesday, March 19, 2008 12:02 PM
To: Julie Hoffman
Subject: Goldfield Ranch Water Reclamation Facility

Hello

I am not sure if I should be addressing this to you or to Roger Klingler, Chairman of the Water Quality Advisory Committee.

I just found out that this committee has been reviewing and potentially approving a water reclamation facility for the Goldfield Ranch area. Well actually the application only appears to be for part of the area.

We noticed that there was inputs taken and concerns raised and potentially addressed from the nearby Indian communities. But, we and other property owners are actually in closer proximity to this proposed treatment facility. We have not been informed or consulted on this and the valid concerns we have are by no means addressed.

There are significant concerns regarding the capacity of the facility as well as how the effluent will be handled. In this area where all current homeowners utilize private well water from aquifers, the risk/impact of mismanagement or incorrect assumptions regarding the aquifers would have a devastating and potentially life-threatening consequences.

I am surprised that this request appears to be moving forward while concerns from the Indian communities has not been addressed as well as no consultation or discussions with the other property owners in the area. This community is passionate and active in maintaining the special nature of the area and ensuring that our property is not ruined due to mistakes from a developer looking for quick profits.

Unfortunately, due to business reasons, will not be able to personally attend the meeting for the committee on the 20th of March. I hope you will forward this as appropriate and ensure the property owners in the area are heard in this matter. If there are other actions I should take, please let me know.

Thank you for your assistance.

Sincerely

Robert & Judy Laughlin
robertclaughlin@ieee.org